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**Notes on TINEIDÆ of North America.**

BY LORD WALSINGHAM.

Through the kindness of my friend Professor C. H. Fernald, I have lately had an opportunity of examining several collections of North-American Tineidæ,\* containing in many cases typical specimens received directly from the authors by whom the species were described. This has enabled me to put together the following notes, which may, I hope, contribute in some small degree towards a rectification of synonymy, which in this extensive family, can by no means be hastily attempted. Among the collections lent to me were:—

1. A large box containing a number of specimens from Prof. Fernald's own collection, some of which had been named and verified by comparison with authors' types; as well as a considerable number from the collection of the American Entomological Society at Philadelphia, these latter being unfortunately for the most part in decidedly bad condition.

2. Two boxes containing a few specimens belonging to Prof. Fernald, received by him from Miss Murtfeldt from the neighborhood of St. Louis. These were in good condition and named, but not in all cases correctly.

3. Three boxes, kindly lent by the Peabody Academy of Sciences of Salem, Massachusetts, containing a number of specimens received as types from Mr. Chambers (many unpinned in pill-boxes with cotton wool), partly corresponding with a list of names subsequently procured from that gentleman by Prof. Fernald; and containing, moreover, a few types of species described by Dr. Packard.

4. Three boxes lent by Mr. Goodell of Amherst, Massachusetts, one containing some few more of Mr. Chambers's types, and two others containing a miscellaneous collection of unnamed species.

5. A box kindly sent at my request by Prof. Riley from Washington, containing some more of Mr. Chambers's species, several of the specimens being marked as types in the list which accompanied them, and several very interesting species, which I understand to have been bred and collected by Prof. Riley himself.

With these materials before me my only regret is that I have not been able to make more use of them. Several difficulties have presented themselves. First, the condition of the specimens themselves has not, on the whole, been very satisfactory. Comparatively few had the wings properly

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\* For reasons for the use of this term see 'Papilio,' vol. ii, page 77.

extended, or were preserved with a due regard for the safety of their palpi and antennæ, so necessary for the correct determination of many genera and species. Secondly, having in many cases only one or two examples of each species, and these subject to the not insignificant risks of another journey between America and England, I have been most unwilling to denude wings for the purpose of examining their neurulation. And, thirdly, the immense number of nearly allied species described by Mr. Chambers of which he has given us no figures, and of which I have not seen the types, have rendered it impossible, especially in such genera as *Gelechia* and *Blastobasis*, satisfactorily to determine many of the numerous species contained in the collections submitted to me. In such cases I have deemed it advisable merely to indicate the genera in my catalogue of specimens, and not to attempt to offer, in this paper, the remarks which in some cases have occurred to me upon their probable nomenclature and synonymy.

After returning my cordial thanks to the owners of the different collections which have been placed at my disposal, I must acknowledge the great assistance derived from Mr. Chambers's "Index to the described Tineina of the United States and Canada," published in 1878, in the 'Bulletin of the United States Geological and Geographical Survey,' vol. iv, which has greatly facilitated reference to numerous scattered papers in the 'Canadian Entomologist,' the 'Cincinnati Quarterly Journal of Science,' the 'Journal of the Cincinnati Society of Natural History,' and other periodical publications, and which is referred to hereafter in this paper, for the sake of brevity, as the "Index," as well as from Mr. Stainton's valuable republication of Dr. Clemens's papers on "Tineina of North America," hereinafter referred to under that name, which has been rendered doubly serviceable to me from my having first studied it at Philadelphia in 1872, and made notes upon Dr. Clemens's typical specimens which were then before me. Good colored drawings of all the species in the various collections, except such as are represented in my own cabinet, have been made for me by Mr. Edwin Wilson; and I hope, in course of time, that these may be rendered available to the public either by publication in Mr. C. O. Waterhouse's most useful 'Aid to the Identification of Insects,' of which the first volume has just appeared, or in some other entomological journal. The numbers which precede the names of the various species mentioned in this paper correspond to those used in my catalogue of the specimens now returned to Prof. Fernald, and are attached on blue labels to the specimens themselves.

Genus **CHOREUTIS**.

746, 747. **Choreutis bjerckandrella** Thnb. (Wocke, Cat. 1302), var. *australis* Zell.

This species has not, so far as I am aware, been recorded from North America. I have received it from Miss Murtfeldt, from whom the specimens in Prof. Fernald's collection were also obtained. It occurs also in California, together with a form identical with, or very closely allied to, *Choreutis silphiella* Grote, (Papilio, vol. i, p. 40), which must probably be regarded as distinct.

Genus **ACROLOPHUS** Poey.

716, 717. **Acrolophus** sp.

Given as *Anaphora agrotipennella* Grote, in Miss Murtfeldt's list, to which a note is attached by Prof. Fernald: "=*An. arcanelle* Cl.; the type is a shade lighter colored, and nearly as light as *An. mortipennella* Grote." I must leave Prof. Fernald responsible for this comparison,\* merely observing that Clemens writes, in his description of *A. arcanelle*, "Labial palpi shorter in the ♂ than in the preceding (*A. popeanella* Clem.), ascending, but *not recurved*." The specimens now before me have the palpi decidedly recurved. I saw Dr. Clemens's supposed type at Philadelphia in 1872; but a note of interrogation on my list, shows that I had then some doubt as to its identity. Mr. Grote's type of his *Anaphora agrotipennella* is not among his very large series of specimens belonging to this genus now in the British Museum; but on my calling his attention to specimens similar to those in Miss Murtfeldt's box he expressed his opinion that they were not his *A. agrotipennella*. Mr. Grote confirmed my belief that *A. agrotipennella* was equivalent to *A. scardina* Zeller, Verh. z.-b. Ges. Wien, 1873, p. 216, which is described by Zeller as variable in size and color. Is not this also *A. popeanella* Clem.? as suggested by Chambers, (see "Index").

Mr. Grote calls attention to the difference in the palpal structure (Can. Ent. iv, p. 138), referring to Stainton's edition of Clemens's papers (Tin. North Am. p. 60), where the head of *A. popeanella* is figured; but referring to p. 57 we find "*popeanella*: labial palpi in the male as long as thorax," which is evidence that the figure on p. 60 must represent the female. The whole genus requires careful revision; and the name "*Anaphora*" of Clemens must be required to give place to one of the earlier generic names which has been attached to these curious forms by other authors. Hübner's *Pinaris hamiferella* (Zütrage, pp. 441, 442) appears to belong to the same genus; this is from Rio Janeiro, whence

\* My comparison was made under unfavorable circumstances and is not to be depended upon.—C. H. FERNALD.

I have also received numerous examples. Walker's genera *Zaruma*, *Urbara* and *Naharra*, are all nearly allied forms.

Felder and Rogenhofer (Novara, pl. cxxxix, fig. 35), adopt, I think with good reason, Poey's genus *Acrolophus* for what is evidently a species congeneric with *Anaphora plumifrontella* Clem.

Poey, in the 'Centurie de Lépidoptères de l'île de Cuba,' 1832, clearly characterizes that genus, and admits that his species is evidently congeneric with *Pinaris hamiferella* Hübner, Zütr. 441, 442. He would gladly have adopted Hübner's generic name, had it been founded on the palpi instead of on the colors of the insect; but he adds "on peut voir par son Catalogue des Lépidoptères connus, que la plupart de ses *Pinaris* ont les palpes courts et de la forme ordinaire."

Mr. Grote has somewhere suggested (I have not the reference before me), that *Acrolophus* should probably be substituted for *Anaphora*. In this I entirely concur.

718. **Acrolophus?** sp.

Named in Miss Murtfeldt's list, "*Anaphora mortipennella* Grote." It is larger than Grote's measurement and seems to be pale ochreous rather than "dirty whitish." I am not convinced that it is truly *A. mortipennella*, and should be glad to be reassured as to this. It presents a curious superficial resemblance to *Amydria effrenatella* Clem., in color and markings, but differs in the structure of the palpi and in the darker hind wings, broader fore wings, &c.

It differs also in the form of the wings from all Clemens's species of the genus *Anaphora*, and has the appearance of a connecting generic link between *Anaphora* and *Amydria*. The neurulation, however, differs from that of both these genera in the furcation of the apical vein.

280-285. **Acrolophus? simulatus**, sp. nov.—Head rough; maxillary palpi none; tongue none; ocelli none. Labial palpi recurved over the head and part of the thorax; the second joint very long, roughly clothed with projecting scales beneath; third joint about half as long as the second, brush-like, with very long diverging scales on the underside. Antennæ strong, slightly pubescent, somewhat serrated on both sides, especially towards the apex. The anal appendages in the male much developed, the elongated ovate side claspers not reaching beyond the upper shield, which is triangular and pointed. Fore wings with the costa arched, apex rounded, apical margin oblique, slightly convex, the dorsal margin somewhat convex, not emarginate before the rounded anal angle. Hind wings ovate, wider than the fore wings. Fore wings with twelve separate veins. The vein from the upper corner of the discal cell in the fore wings ends on the costal margin and is not forked; cell of hind wings not closed. Alternate brown and whitish ochreous patches along the costal and dorsal halves of the fore wings, the paler portions apparently predominating rather more than in *Eutepiste cressoni*, the darker portions assuming the form of two angulated fasciæ; there are

numerous raised bluish fuscous scales scattered especially about the darker patches. Hind wings and cilia dull brown. Expanse 15 millims.

Six specimens in the collection of the Am. Ent. Soc. Philadelphia, unfortunately all of them in very bad condition. So far as I can judge, the markings and colour are almost exactly similar to those of the following species, also from Texas.

**EULEPISTE**, gen. nov.

Head rough, maxillary palpi none, tongue none, ocelli none. Labial palpi ascending, with the second joint roughly clothed with coarse scales, projecting beneath; terminal joint coarsely scaled, tapering to a blunt point, about equal in length to the second joint. Antennæ (with the basal joint thickened and coarsely scaled) slightly serrated and pilose beneath. Anal appendages of the male greatly developed; the side claspers elongate ovate, projecting well beyond the triangular pointed upper shield, which is clothed with long scales; the anal segment with short diverging bristles beneath. Fore wings: costa arched, apex rounded, apical margin oblique, slightly convex; dorsal margin nearly parallel with the costal, but slightly emarginate before the anal angle; apical vein forked. Hind wings ovate, rather wider than the fore wings, widest on the basal half, tapering outwards towards the rounded apex, and not emarginate below it. Veins of the fore wings twelve, not including the false vein after vein 1 on the dorsal margin; two of these from the same stem; cell closed. The vein running from the upper corner of the cell in the fore wings is forked, one branch ending on the costal margin, and one in the apex.

268-279. **Eulepiste cressoni**, sp. nov.—Palpi brown, with ochreous scales intermixed, the apical joint with an indistinct pale ochreous band around its middle. Antennæ pale brown. Fore wings brown, with scattered purplish fuscous and ochreous scales, the former collected in raised tufts, especially about the dorsal margin; the latter aggregated in the form of three or four square patches, one before, and one beyond the middle of the dorsal margin, one about the middle of the costa and one at or just before the apex. These in some specimens are so arranged as to form an indistinct chess-board pattern, the dark and pale squares being alternate on the costal and dorsal halves of the wing; in some specimens the median costal and the antemedian dorsal pale squares, which are always somewhat the most conspicuous, are joined in an angulated fascia. Abdomen with the hind wings and their cilia dull brown. The first two pairs of legs conspicuously spotted with brown and ochreous, the third pair ochreous on the tibiæ, spotted with brown on the tarsal joints. Expanse 15 to 20 millim., the ♀ being larger than the ♂.

Several specimens in the collection of the Am. Ent. Soc. Philadelphia, from Texas. I have long possessed and known this species, but could not believe it to be still undescribed, as it seems to be common in Texan

collections; but I am unable to find any description agreeing with it. In coloration this seems to be almost inseparable from the preceding species, but its short palpi and the neuration of the fore wings amply distinguish it, and probably do not justify the juxtaposition of the two species in systematic order. *Eulepiste*, indeed, exhibits some signs of affinity to the genus *Acrolepia*.

#### Genus **BLABOPHANES.**

126, 127, &c. **Blabophanes dorsistrigella**, Clem. (See Chambers's "Index.")

This is the same as *Tinea subjunctella*, Walk. (Cat. Lep. Het. B.M. xxviii. p. 471), but Dr. Clemens's name has precedence.

Specimens are in Prof. Fernald's collection.

180, &c. **Blabophanes ferruginella**, Hüb. (Wocke, Cat. 1368).

*Tinea crocicapitella*, Clemens, Proc. Ac. Nat. Sci. Phil. 1859, p. 257, &c.

Specimens of this species in Prof. Fernald's collection and in that of the American Ent. Soc. at Philadelphia agree with a specimen in my own collection, which has been compared with Dr. Clemens's type.

#### Genus **TINEA.**

1050. **Tinea biflavimaculella**.

*Tinea biflavimaculella*, Clem. Proc. Ac. Nat. Sci. Phil. 1859, p. 257; Tin. Nor. Am. p. 237, &c.

*Tinea insignisella*, Walk. Cat. Lep. Het. B. M. xxviii. p. 471.

?= *Tinea rusticella*, Hüb., var. *spilotella*, Tengst., see "Index."

I am not acquainted with the type of *Tinea spilotella*, which has been regarded as a variety of *T. rusticella*; but there is little or no variation among the numerous specimens of *T. biflavimaculella* which I have seen. These appear to have the fore wings somewhat wider in proportion to their length than *rusticella*, and are so different in markings as to convince me that they are not mere varieties of that species; whether they are the same as *T. spilotella* or not I cannot venture to decide. Mr. Stainton writes (Tin. Nor. Am. p. 237) that they are closely allied to, if not identical with, it. I find that Mr. Walker's type of *Tinea insignisella* agrees with this species.

13, 14, &c. **Tinea pellionella**, Lin. (Wocke, Cat. 1405).

*Tinea carnariella*, Clem. Proc. Ac. Nat. Sci. Phil. 1859, pp. 256, 257; Tin. Nor. Am. pp. 49-51.

*Tinea griseella*, Cham. Can. Ent. v. p. 88.

*Tinea flavifrontella*, Pack. Guide, p. 346 (larva only).

Dr. Packard has confused two distinct species in his account of *Tinea flavifrontella*, Lin. (Guide p. 346). The name *flavifrontella*, W. V. et Fab. ?, is quoted by Stainton (Ins. Brit. Lep. Tin. p. 34) as a probable synonym of *Tinea biselliella*, Hummel. This species, which appears

to be indicated by Dr. Packard in his description of the imago, makes no case in its larval stage; the case figured by Dr. Packard belongs most probably to *Tinea pellionella*, Lin., which is *T. carnariella*, Clem., = *T. griseella*, Cham. Mr. Chambers does not allude to the case-making habit of the larva; but I gather from Prof. Fernald's letter, August 19, 1881, that *T. griseella* has this habit.\*

182, &c. ***Tinea granella***, Lin. (Wocke, Cat. 1385.)

This, as suggested by Mr. Stainton (Tin. Nor. Amer. p. 53), is *Tinea varietella*, Clem., and undistinguishable, so far as I can judge, from European specimens.

There are examples in the collection of the American Entomological Society at Philadelphia and in Prof. Fernald's cabinet.

238. ***Tinea fuscipunctella***, Haw. (Wocke, Cat. 1404).

A specimen in Prof. Fernald's collection is labelled "Labrador." Prof. Packard's types of *Æcophora frigidella*, Pack., from the Peabody Academy of Sciences, Salem, Mass., are also from Labrador, and belong, without doubt, to the genus *Tinea*, probably to *T. fuscipunctella*; but their condition is not such as to justify the expression of any very decided opinion as to their identity.

#### Genus **EUDARCIA**.

852. ***Eudarcia simulatricella***.

*Eudarcia simulatricella*, Clem. Proc. Ac. Nat. Sci. Phil. 1860, ii.

*Tinea cæmetariæella*, Cham. Can. Ent. v. p. 85, and "Index."

My notes on Clemens's type are that the "transverse streak near the tip" of the fore wings mentioned in the description is "semi-circular, not extending across the wing." This agrees with Chambers's description, in which it is called "an obliquely curved costal white streak." I fail to see in this specimen the "costal white spot in the apical portion of the wing" mentioned by Chambers, nor does this occur in Clemens's description. The neuration, according to Dr. Clemens's figure, differs from that of the genus *Tinea*, with which, in other respects, this species appears to agree.

A single specimen received from Mr. Chambers as *T. cæmetariæella* is in the collection of the Peabody Academy of Sciences, Salem, Mass.

#### Genus **SCARDIA**.

1037. ***Scardia anatomella***.

*Fernaldia anatomella*, Grote, Bull. U. S. Geol. & Geog. Surv. vi. p. 274.

I am well acquainted with this species, having bred several specimens from larvæ found in March, 1872, boring round holes in a dead fallen

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\* *Tinea griseella* Cham. is a case-making species, and is the most common and destructive carpet and clothes moth in this part of the country.—C. H. FERNALD.



pine-tree. It is very nearly allied to *Scardia boletella*, Fab. (*S. poly-pori*, Esper), from which it differs only in its smaller size, in the apical joint of the palpi being distinctly annulated, and in the darker portions of the wing being much blacker (more purplish black), and approaching much nearer to, or reaching the anal angle, from which in *boletella* they are distinctly separated.

#### Genus **INCURVARIA.**

##### 806. ***Incurvaria acerifoliella*.**

*Ornix acerifoliella*, Fitch, Rep. Nox. Ins. N. Y. parts 1 & 2, p. 269; Ont. Rep. 1873, p. 42.

*Incurvaria acerifoliella*, Clem. Proc. Ac. Nat. Sci. Phil. 1860, p. 55; Tin. Nor. Am. p. 90.

*Tinea iridella*, Cham. Can. Ent. v. p. 86, xi, p. 146 and Index.

Mr. Chambers (Can. Ent. xi. p. 146) writes, "*Tinea iridella*, Cham., will probably be referred to *Incurvaria*." This is, without doubt, *I. acerifoliella*, Fitch, of which a single specimen is in the collection of the Peabody Academy of Sciences, Salem, Mass.

I am now convinced that the two species placed by me in the genus *Lampronia* (P. Z. S. 1880, xii. p. 10), under the names *L. oregonella* and *L. tripunctella*, should be more properly included in the genus *Incurvaria*, their heads not being smooth above except where they have been slightly denuded. My *Incurvaria tripunctella* agrees with Clemens's *I. russatella* in all respects except in having an additional costal spot; for I find a memorandum made at Philadelphia in 1872, "Clemens's type (of *Incurvaria russatella*) does not agree with his description as to the position of the costal and dorsal spots; they are not exactly 'opposite' to each other, the costal being decidedly nearer to the base."

#### Genus **ADELA.**

##### 1027. ***Adela ridingsella*.**

*Adela ridingsella*, Clem. Proc. Ent. Soc. Phil. 1864, ii. p. 426; Tin. Nor. Am. p. 250.

*Dicte coruscifasciella*, Cham. Can. Ent. v. p. 74 &c., see "Index."

*Adela (Dicte) coruscifasciella*, Cham. Index.

*Adela schlaggeri*, Zell. Verh. z.-b. Ges. Wien, 1873, p. 27.

This confirms my statement (P. Z. S. 1880, p. 79) that these two names had been given to the same species; the specimen is the type of Chambers's species, kindly lent by Mr. Goodell.

#### Genus **ACROLEPIA.**

##### 181. ***Acrolepia dorsimaculella*.**

*Heribeia dorsimaculella*, Chambers, Can. Ent. iv. p. 43.

*Heribeia incertella*, Chambers, Can. Ent. iv. p. 44.

*Argiope dorsimaculella*, Chambers, Can. Ent. v. pp. 13, 174.

If, as I believe, I have rightly identified this species, Mr. Chambers

was justified in suggesting (Can. Ent. v. p. 174) that it might "be found to belong to *Acrolepia*, Curt." It is very nearly allied to *Acrolepia betuletella*, Curt. (Wocke, 1531), but the dorsal white streak is not divided by a dark line as in that extremely local species. The palpi are also somewhat shorter; the pale costal streaks and spots, moreover, serve to distinguish it.

#### Genus **ARGYRESTHIA**.

556. ***Argyresthia subreticulata***, sp. nov.—Palpi white, with a slight golden tinge; head and face silvery white; antennæ annulated with white and golden. Fore wings white; the dorsal portion pure white to within a short distance of the apex; the costal third from the base bright golden, beyond the middle the golden scaling covers a wider portion of the wing, and is reticulated with white, becoming slightly darker or more bronzy towards the apex, around which is a bronzy gold line at the base of the fringes; apical cilia golden; dorsal cilia pale greyish. Hind wings grey, with pale golden-brown fringes. Expanse 9 millim.

One in coll. Am. Ent. Soc. Phil.; apparently allied to *A. glaucinella*, Zell. &c.

#### Genus **CHIMABACCHE**.

100. ***Chimabacche? haustellata***, sp. nov.—Palpi fuscous, the second joint with a long projecting tuft, white at the apex externally, white at the base and apex internally, the apical joint fully equal to the second in length, with white lines above and beneath reaching to the apex; head with some rough projecting scales above; face smooth. Antennæ fuscous, nearly two thirds of the length of the fore wings, partly annulated, partly streaked on alternate joints, with conspicuous white scales, strongly ciliated beneath, having the basal joint somewhat tinged with ochreous. Tongue rather long and scaled, whitish ochreous. Fore wings elongate, with the apical margin oblique, the apex depressed, slightly inclining to falcate, brownish fuscous, with some scattered whitish scales about the apical portion of the wing, and two inconspicuous spots of whitish scales, one on the middle, the other about the end of the cell, the first nearer to the costal than to the dorsal margin; at the middle of the costa is a diffused pale ochreous spot, followed by a larger one at the commencement of the costal cilia, and a third just before the apex. There are some pale ochreous spots along the inner and outer edges of the otherwise dark fuscous cilia of the apical margin. Hind wings scarcely paler than the fore wings, with a fuscous clouded line along the middle of the subochreous cilia. Tarsi spotted with pale ochreous. Expanse 16 millim.

Having before me only a single specimen of this species, I have hesitated to describe a new genus for its reception, especially as I am unable critically to examine the neururation. The apical vein is furcate, and except for the narrower and rather more acuminate hind wings, the longer tongue and tufted second joint of the palpi, it approaches most nearly the genus *Chimabacche*, Zell., in which, at least provisionally, I propose to place it. It would be interesting to discover the female of this species,

which, if I have even approximately determined its generic position, is probably nearly apterous.

The specimen is in Prof. Fernald's collection.

Genus **EPIGRAPHIA.**

8. **Epigraphia packardella.**

*Enicostoma packardella*, Clem. Proc. Ent. Soc. Phil. iii. p. 125.

*Epigraphia eruditella*, Grote, N. Am. Ent. i. p. 53, pl. v. f. 12.

This species is closely allied to *Epigraphia steinkellneriana*, Schiff. (Wocke, Cat. 1662).

The label in Prof. Fernald's collection indicates that this is *Epigraphia eruditella*, Grote. I have been able to verify this by comparison with Mr. Grote's type now in the British Museum.

Genus **SEMIOSCOPIUS.**

203. **Semioscopsis inornata**, sp. nov.—Palpi whitish, the second joint externally brownish fuscous; apical joint with a brownish-fuscous spot beneath at its base, and a broad brownish-fuscous band around its middle; head and thorax whitish, much mixed and clouded with greyish fuscous. Antennæ pubescent, slightly tinged with ochreous. Fore wings greyish white, profusely irrorated with greyish-fuscous scales, a few scattered greyish-fuscous spots along the costa, especially near the costal cilia, two before the middle of the cell and two at its outer end, in both cases placed one above the other; some slight greyish-fuscous mottling around the apical margin, but all the markings very inconspicuous. Cilia whitish, divided by an obscure greyish-fuscous line before their points. Hind wings whitish grey, with pale cilia; a strong tuft of long hairs on the basal part of the dorsal vein. Abdomen greyish, tinged towards the base and at the anal tuft with ochreous. Legs whitish grey. Expanse 33 millim.

In Prof. Fernald's and Mr. Allen's collections.

134. **Semioscopsis allenella**, sp. nov.—Palpi greyish white, tinged with fuscous externally and beneath, the apical joint with a fuscous band around its middle. Antennæ having a slightly serrated appearance in the male, subochreous. Head greyish white. Fore wings with costa attached; apex and anal angle rounded, apical margin somewhat oblique, with rather the form of one of the Tortricidæ, greyish white, with numerous specks and mottlings of greyish fuscous, especially on the costal and apical parts of the wing, the most conspicuous being just beyond the middle of the cilia; two greyish-fuscous discal spots, one at the middle, the other at the end of cell, each followed by some ochreous scales, a row of diffuse greyish-fuscous spots around the apical margin before the cilia, extending round the apex beneath the costal cilia, the costa greyish-fuscous at the extreme base. Hind wings and cilia whitish grey. Abdomen and posterior pair of legs tinged with ochreous. On the underside the hind wings are decidedly paler than the fore wings. Male expanse 19 millim.

This species is undoubtedly allied in form and general appearance to *Epigraphia*, but differs in neuration; the apical vein of the fore wings is forked, and vein 3 is also forked soon after leaving the lower end of the cell, its two branches ending on either side of the anal angle. From Prof. Fernald's and Mr. Allen's collections.

Genus **DEPRESSARIA.**

221. **Depressaria fulva**, sp. nov.—Palpi rich tawny red, speckled with whitish and fuscous scales; the second joint whitish on its inner side; apical joint paler, tipped with ochreous, with a few fuscous scales around its middle. Antennæ fuscous, pubescent and ochreous beneath; head tawny red; thorax tinged with fuscous, with some whitish scales posteriorly. Fore wings rich tawny red, much sprinkled with fuscous scales; some whitish scales forming a short line from the dorsal margin very near the base; a blackish inconspicuous spot, with a single white scale in its centre, lies at the end of the cell, and is surrounded by a diffuse greyish-fuscous cloud, from which the lines of the veins are marked by greyish-fuscous scales to the apex and apical margins; the costal and apical margins are much speckled with fuscous; the cilia greyish, tipped with shining rosy red. Hind wings and cilia grey, the cilia tipped at the extreme apex with rosy red. Abdomen grey, legs paler, somewhat tinged with rosy red. Expanse 22 millim.

A beautiful and distinct species, of which one male is in Prof. Fernald's collection.

**Depressaria applana**, Fab. (Wocke, Cat. 1729.)

*Gelechia clemensella*, Cham. Can. Ent. viii. p. 173.

This specimen in Prof. Fernald's collection is labelled "*Gelechia clemensella*, Cham., *salicifungiella*, Clem." *Gelechia clemensella* is omitted from Mr. Chambers's "Index." The description with which the specimen before me appears to agree will be found under the reference given above. *Gelechia salicifungiella*, Clem., is not only specifically but generically distinct. It is a narrow-winged *Gelechia*, of the "*Ergatis*" group, remotely allied to *G. roseosuffusella*, Clem., and cannot for a moment be mistaken for a *Depressaria*.

The only point in which this specimen and two others in the same collection differ from our European form is in their slightly shorter and smaller fore wings. Mr. Stainton, to whom I submitted this specimen, concurs with me in the opinion that it is *Depressaria applana*, but writes that he has "not a specimen exactly like it."

65, 66. **Depressaria arenella**, W. V. (Wocke, Cat. 1703).

? *Depressaria yeatiana*, Wlsm. P.Z.S. 1881, p. 316.

These specimens are unset and cannot be so well examined as if the wings were spread; but I have no doubt of their identity with the European *D. arenella*. On re-examination I am disposed to doubt whether the two single specimens from Texas and Oregon referred to in P. Z. S. 1881, p. 316, as *D. yeatiana*, Fab., do not more properly belong to this same species.

Genus **CRYPTOLECHIA.**

335. **Cryptolechia nubeculosa.**

*Cryptolechia nubeculosa*, Zeller, Verh. z.-b. Ges. Wien, 1873, p. 245, af. iii. f. 12.

*Harpalycæ canusella*, Cham. Can. Ent. vi. p. 235, and Index.

*Ide canusella*, Cham. Cin. Soc. Nat. Hist. ii. p. 180.

A specimen received from Prof. Riley, which was sent to him by Mr. Chambers as *Harpalyce canusella*, proves that this species, common in Texan collections, is the same as *Cryptolechia nubeculosa*, figured and described by Zeller. The three species placed by Chambers in his genus *Harpalyce*, afterwards changed to *Ide*, do not differ, so far as I am able to ascertain, from the most usual forms of Zeller's genus *Cryptolechia*.

**22. *Cryptolechia quercicella*, Clem.**

*Psilocorcis quercicella*, Clem. Proc. Ac. Nat. Sci. Phil. 1860, p. 212.

*Cryptolechia faginella*, Cham. Bull. U. S. G. & G. Surv., 1878, p. 84 *et seq.*

*Hagno faginella*, Cham. Can. Ent. iv. p. 131, vi. p. 231.

*Cryptolechia cressonella*, Cham. Bull. U. S. G. & G. Surv. 1878, pp. 85, 86.

? *Cryptolechia obsoletella*, Zell. var. Verh. z.-b. Ges. Wien, 1873, p. 242.

Mr. Chambers (Bull. U. S. G. & G. Surv.) discusses at length the difference between his *Cryptolechia* (originally *Hagno*) *faginella* and the undescribed species for which he proposes the name "*cressonella*," and compares them both with *Cryptolechia* (originally *Psilocorcis*) *quercicella*, as described by Clemens and recognized by Zeller. He ends by expressing some hesitation as to their distinctness from each other, and writes, "with fuller collections of bred specimens of all the supposed species it is not improbable that they will be deemed at most only phytophagic varieties of a single species." Having carefully compared a considerable number of specimens from Texas, from Missouri, and from North Carolina, I am unable to discover any constant and reliable characters by which they can be distinguished from each other. Two examples from Miss Murtfeldt's collection, which have the appearance of bred specimens, faithfully represent the two varieties *quercicella*, Clem., and *cressonella*, Cham. There seems to be a considerable amount of variation in the distinctness of the slender transverse lines, in the intensity of the coloring of the head, thorax and fore wings, in the separation or amalgamation of the spots on the apical margin, and in the presence or absence of diffuse costal spots. The hind wings also are lighter in some specimens than in others. I have no knowledge of the insect described as *Cryptolechia obsoletella*, Zeller (Verh. z.-b. Wien, 1873, p. 242); but a specimen in Prof. Fernald's collection agrees with Zeller's description, and leads me to think it not impossible that it may be found to be a small dark variety of the female of this same species.

**728. ? *Cryptolechia cretacea*.**

*Cryptolechia cretacea*, Zell. Verh. z.-b. Ges. Wien, 1873, p. 243.

*Harpalyce albella*, Cham. Can. Ent. vi. p. 235; Cin. Soc. Nat. Hist. ii. p. 180, and Index.

*Ide albella*, Cham. Journ. Cin. Soc. Nat. Hist. ii. p. 180.

This, originally from Miss Murtfeldt's collection, is without doubt

Chambers's *H. albella* as named in her list; and I have little doubt that it will be found to be *Cryptolechia cretacea*, Zeller, with the description of which it well agrees. Zeller evidently regards *Harpalyce* as equivalent to *Cryptolechia*, as shown by his placing Chambers's *Harpalyce canusella* in that genus.

#### Genus **GELECHIA**.

1163. Labelled "***Phætusa plutella***, Cham., Texas."

If specimens received from Miss Murtfeldt are truly *Gelechia prunifoliella*, Cham., which I see no reason to doubt, as they agree entirely with the original description (Can. Ent. v. p. 186), although not with the amended version of it (Can. Ent. vii. pp. 106, 107), it seems to me, that this example must belong to the same species. Mr. Chambers gives his reason for separating them (Can. Ent. vii. p. 106); but, except so far as these depend upon slight differences of neurulation which I cannot examine, I am unable to recognize them in the specimens before me. It is of course just possible that Miss Murtfeldt's specimens may not truly represent *G. prunifoliella*.

#### 976. ***Gelechia cercerisella***.

*Gelechia quinella*, Zell.

*G. cercerisella*, Cham. var. Can. Ent. vi. p. 231.

This is the Texan species described by Prof. Zeller, and is equivalent to the supposed variety of *Gelechia cercerisella*, Cham., noticed by Mr. Chambers, Can. Ent. vi. p. 231. I have a single specimen of the typical *Gelechia cercerisella*, which differs in the absence of the lower median spot, but appears to be in other respects similar to the Texan form.

210. ***Gelechia flavicorporella***, sp. nov. — Palpi whitish ochreous, stained and spotted with fuscous outwardly and beneath; second joint brush-like beneath, third joint acuminate. Head greyish-fuscous; antennæ greyish-fuscous, speckled with a few ochreous scales. Fore wings (with the costa slightly arched before, and slightly depressed about the middle, the apical margin oblique) about equally covered by greyish-fuscous, whitish ochreous, and brownish ochreous scales—the brownish prevailing across the middle, the fuscous beyond the middle, and the whitish around the apical margin and fringes. There are four indistinct spots of whitish scales, two on the outer half, one on the inner half of the cell, and one on the fold, placed obliquely below and before the middle discal spot. The outer discal spot is followed, the others are all preceded, by fuscous scales; some whitish ochreous spots along the apical margin are followed by fuscous scales at the base of the cilia, and an indistinct fuscous shade runs along the middle of the cilia, not extending above the apex. Hind wings greyish, with greyish-ochreous fringes. The anterior half of the abdomen distinctly yellow ochreous; the posterior half greyish-fuscous, with paler anal tuft. Posterior tarsi greyish-fuscous, the joints and tibiæ paler. Expanse 20 millim.

One male in Mr. Allen's collection; one in Prof. Fernald's collection.

1066. ***Gelechia petasitis***, Pfaff (Wocke Cat. 1836).—Palpi whitish, irrorated with greyish scales; second joint brush-like beneath; apical joint shorter than the second. Antennæ rather indistinctly annulated. Head and thorax greyish white. Fore wings lanceolate acuminate, narrow at the base; the anal angle obsolete, white, profusely irrorated with grey scales, with three elongate greyish-fuscos dots, the first about the middle of the fold, the second obliquely above it on the cell, the third at the end of the cell; a row of greyish-fuscos dots around the apex and apical margin, sometimes almost obsolete; cilia with mixed whitish and greyish-fuscos scales. Hind wings wider than the fore wings, decidedly emarginate below the apex, grey with greyish ochreous cilia not quite equal to the width of the wings. Posterior legs pale ochreous; the tarsi fuscous, spotted with pale ochreous at the joints.

♀. Much whiter than the male, the antennæ more distinctly annulated, the discal and marginal spots more conspicuous.

Expanse 17 millim.

Two males and one female in Mr. Goodell's collection; one very plainly marked female in Mr. Allen's collection.

670. ***Gelechia (Bryotropha?) bosquella***.

*Gelechia bosquella*, Cham. Bull. U. S. G. & G. Surv. iv. p. 87, and "Index."

*Ecophora bosquella*, Cham. Can. Ent. vii. p. 92.

*Gelechia bosquella*, Cham. Can. Ent. vii. p. 124.

This is certainly a *Gelechia*, not an *Ecophora* as suggested by Chambers (Bull. U. S. G. & G. Surv. iv. p. 87, and "Index"); the palpi and the form of the hind wings at once distinguish it. The description should be amended as follows:—Head maroon-brown; the upper or costal portion of the pale orange fascia is tinged with white; the costal spots are both white, the outer one being by far the largest and most conspicuous; there is also a small white spot on the margin below the apex, with some few white scales below it. In the specimen before me the tip of the basal joint of the antennæ is scarcely to be called white.

120, &c. ***Gelechia (Lita) vagella***.

*Gelechia vagella*, Walk. Cat. Lep. Het. B. M. xxix. p. 596.

*Depressaria fuscoochrella*, Chambers, Can. Ent. iv. pp. 106, 129, 147, 148.

*Gelechia fuscoochrella*, Chambers, Bull. U. S. G. & G. Surv. 1878, iv. p. 143.

*Gelechia (Lita) liturosella*, Zeller, Verh. z.-b. Ges. Wien, 1873, p. 265.

A specimen in the collection of the Peabody Academy of Sciences, Salem, Mass., received from Mr. Chambers, agrees in every particular with Zeller's description of *G. liturosella*; and I am convinced, by comparing it with Walker's rather damaged type in the British Museum, that it was originally described as *G. vagella*.

There are specimens in Prof. Fernald's collection, and in Mr. Goodell's collection from Amherst, Mass. I did not meet with it in the Western States.

1159. ***Gelechia* (Lita?) *conclusella*.***Gelechia conclusella*, Walk. Cat. Lep. Het. B. M. xxix. p. 593.*G. crescentifasciella*, Cham. Can. Ent. vi. p. 237, &c., and Index (nec B. U. S. G. & G. Surv. iv. p. 90).*G. griseofasciella*, Cham. Cin. Quart. Journ. Sci. ii. p. 253.

This specimen is labelled "*Gelechia griseofasciella*, Cham., Texas," and is one of those received from Mr. Chambers, and regarded by Prof. Riley as unique and as type specimens. I have no hesitation, after comparing it with the type of *G. crescentifasciella*, Cham., received from Mr. Goodell, in pronouncing it a worn specimen of that species. Mr. Chambers has described two supposed varieties of his *G. crescentifasciella*, the first with a complete fascia, the second with only pale costal and dorsal spots. These will probably be proved to be distinct species. The specimen before me is the fasciated form, and is equivalent to Walker's *G. conclusella*. A specimen of the second, also from Mr. Chambers's collection, is in the Peabody Academy of Sciences, Salem, Mass., and is not distinguishable from specimens received from Texas; it has a decided dark spot on the extreme base of the costa.

222. ***Gelechia* (*Teleia*) *oronella*, sp. nov.**—Palpi with the second joint thickened with projecting scales, scarcely brush-like, greyish white, with the basal half of the second joint, a spot before its apex externally, and two wide annulations on the apical joint brownish fuscous. Head and thorax greyish white; antennæ brownish fuscous. Fore wings narrow, elongate, greyish white; a patch at the base of the costa pointing downwards parallel to the fold, a sometimes reduplicated streak along the middle of the fold, an outwardly oblique line of spots from before the middle of the costa, beyond which are two dots at the end of the cell, all brownish fuscous; the wing is speckled and smeared, especially above and below the fold and on the apical portion, with dilute brownish fuscous, and there is a spot on the beginning of the costal cilia, preceded by a smaller one of the same color, others less conspicuous around the apical margin; cilia greyish. Hind wings not deeply emarginate below the apex, a little broader than the fore wings, greyish, with slightly paler fringes. Abdomen pale greyish-ochreous. Expanse 15 millim.

Two in Prof. Fernald's collection from Orono, Maine.

This species differs from *Gelechia* (*Evagora*) *apicitripunctella*, Clem., *G. (Evagora) gilvisporella*, Zell., and *G. (E.) dorsistrigella*, Zell., in the dorsal portion of the wing below the fold being not paler than the remainder of the wing, as well as in its much darker antennæ, which are not annulated. It is also somewhat larger than those species, which are about equal in size to *Gelechia* (*Evagora*) *cristatella*, Cham. It has so much the appearance of the tuft-bearing species with which I have here compared it, that I fully expected it to belong to the same group; but it is more properly placed in the sub-genus *Teleia*.



291-303. ***Gelechia (Pœcilia) inscripta***, sp. nov.—Palpi white, the lower half of the second joint blackened externally, and with a small fuscous spot near its apex, very slightly brush-like beneath; apical joint smooth, acuminate, with two black annulations, one above the base, the other before the tip. Head and thorax white, some black scales on the middle of the thorax above; antennæ white, annulated and spotted above on each joint with fuscous, the white basal joint excepted. Fore wings elongate acuminate, slightly enlarged towards the base, and tapering outwards, white, with a reduplicated black spot at the extreme base of the costa; a black fascia pointed obliquely inwards from the costa before the middle to the middle of the fold, below which it dies out in a patch of scattered scales; a black costal spot at the commencement of the costal cilia, another opposite to it on the dorsal margin, between them are some scattered fuscous scales and dots, sometimes obsolete; around the apex and apical margin are some fuscous dots before the white cilia, which become greyish about the anal angle. Hind wings and cilia pale greyish. Abdomen white, with a faint ochreous tinge. Legs white, the tarsal joints spotted with fuscous. Expanse 13 millim.

I have long known this species, having received it from Texas and from St. Louis. It is possibly the species referred to by Prof. Riley (Can. Ent. iii. pp. 195, 196) as "*Gelechia geminella*, Lin.," being very similar in appearance to *Gelechia gemmella*, Lin., but differing in the position of the dark fascia, which in *gemmella* commences beyond the middle of the costa.

Prof. Riley states that his species feeds upon oak-galls. Several specimens are contained in the collection of the Am. Ent. Soc. Philadelphia, which is now before me. I believe them to be from Texas.

A specimen from Miss Murtfeldt's collection is stated in her list to be *Gelechia palliderosacella*, Cham.; but it is impossible to reconcile any variety of this species with Chambers's description under that name.

310-318. ***Gelechia (Ergatis) roseosuffusella***.

*Gelechia (Ergatis) roseosuffusella*, Clem. Proc. Ac. Nat. Sci. Phil. 1860, p. 162, see "Index."

Subsequently described by Walker (Cat. Lep. Het. B. M. xxix. p. 595) as *Gelechia bellela*, Walk., a very common species in all N. American collections. I have it also from California.

679, 868, &c. ***Gelechia (Ergatis) rubidella***.

*Gelechia rubidella*, Clem. Proc. Ac. Nat. Sci. Phil. 1860, p. 163; Tin. Nor. Am. p. 115, &c.

*Gelechia rubensella*, Cham. Can. Ent. iv. p. 193, &c., and Index.

I am unable to separate this species from *G. rubidella*, Clem., which has also the dark tip to the palpi. Like *roseosuffusella* it seems to be a somewhat variable species, but distinguished usually by its smaller size as well as by the habits of its larva. I am not acquainted with *G. intermediella*, Cham.; but probably a good series received from Belfrage, from Texas, exhibiting a wide range of variation from dark grey to pale rosy.

may be correctly referred to that species. They differ from *roseosuffusella* in their smaller average size; but a knowledge of their larval habits is necessary to establish this as a distinct species and to contribute to a general revision of the group to which they belong.

*G. (Ergatis) pudihundella*, Zell. Verh. z.-b. Ges. Wien. 1873, p. 273, must be at least very closely allied to this species; but I have not seen the type.

869-871. ***Gelechia (Anacamptis) absconditella*.**

*Gelechia absconditella*, Walk. Cat. Lep. Het. B. M. xxix. p. 595.

*Gelechia palpiannulella*, Cham. Can. Ent. iv. pp. 68, 69.

These two specimens, presented by Mr. Chambers to the P. A. S. Salem, Mass., and therefore presumably equivalent to his type, have one peculiarity which is omitted in the original description. The fifth, tenth, and less distinctly the thirteenth joints from the apex of the antennæ are whitish ochreous above, giving the appearance of three annulations; but the difference of color is scarcely distinguishable in the under side. I find this same peculiarity in Walker's *Gelechia absconditella*, and have no hesitation, after a careful examination of his type, in referring *G. palpiannulella* to that species. Walker's "length of wings 6 lines," should have been "expanse of wings 6 lines," which is an outside measurement. Something approaching to the same ornamentation of the antennæ is described by Mr. Chambers as a characteristic of *Gelechia tephriasella*, Cham. (Can. Ent. iv. p. 68), which, however, appears to differ considerably from *G. absconditella* in general coloration.

This species appears to be allied to *Gelechia (Anacamptis) anthyllidella*, Hüb. (Wocke, Cat. 2078).

1061-1064. ***Gelechia (Anacamptis) tristrigella*. sp. nov.**—Palpi smooth, orange-yellow, the second joint thickened, not tufted, the apical joint longer than the second. Eyes crimson (as in *G. agrimoniella*, Clem.). Antennæ greyish fuscous, indistinctly annulated with pale ochreous. Head iridescent steel-blue; face yellow. Fore wings with the apical margin slightly more oblique than in *G. agrimoniella*, greyish fuscous from the base to beyond the middle, with a greenish hue in some lights and a steel-grey streak along the costal margin, passing over the front of the thorax; beyond the middle very dark brown, with a transverse white fascia extended outwards at the commencement of the costal cilia, narrowed in the middle of the wing, and somewhat dilated about the dorsal margin; beyond it are three, sometimes four, white tooth-like streaks, with their bases joined towards the apical margin and separated from the steel-grey fringes by a reduplicated line of dark brown, which passes around the apex. Hind wings brown, with grey fringes, oblique, but scarcely emarginate below the apex; the base of the costal margin steel-grey. Abdomen brown, with three or four white transverse bands at the ends of the posterior segments. Posterior legs dark brown externally, pale ochreous on their inner sides, banded with pale ochreous above the spurs (which are also pale ochreous) and at the tarsal joints. Expanse 12 millim.

Four specimens from Mr. Coquillett. No locality given.

A beautiful species, allied to *G. agrimoniella*, Clem., which is also represented in this collection, but differing from it in the three contiguous white streaks from the apical margin.

331. ***Gelechia* (—?) *attributella*.**

*Gelechia attributella*, Walk. Cat. Lep. Het. B. M. xxix. p. 593.

*Evagora difficilisella*, Chambers, Can. Ent. iv. p. 66.

*Taygete difficilisella*, Chambers, Can. Ent. v. p. 231, vii. p. 105, viii. p. 19.

*Gelechia difficilisella*, Chambers, Can. Ent. iv. p. 192, v. pp. 185, 186, 187, 229, and Index.

Comparing these specimens with one in the collection of the Peabody Academy of Sciences, Salem, Mass., received from Mr. Chambers, and with Walker's type of *G. attributella* in the British Museum, I find them to be the same. Walker's name has precedence.

148-150. ***Gelechia* (*Evagora*) *apictripunctella*.**

*Evagora apictripunctella*, Clem. Proc. Ac. Nat. Sci. Phil. 1860, p. 165.

*Gelechia* (*Teleia*?) *gilviscopella*, Zell. Verh. z.-b. Ges. Wien, 1873, p. 266.

*Gelechia gilviscopella*, Cham., "Index."

These are pale varieties of a species which I carefully compared in 1872 with the remains of Clemens's type of *Evagora apictripunctella*, in the collection of the Entomological Soc at Philadelphia. They do not entirely agree with his description, but this may probably be owing to their slightly worn condition. They agree as nearly with Zeller's description of *Gelechia* (*Teleia*?) *gilviscopella*; and although it seems somewhat remarkable that Dr. Clemens should have overlooked the tuft of hairs on the hind wings, I am convinced that a comparison of this species with his type of *Evagora* will show them to be the same. In Prof. Riley's collection is a dark specimen with a more decidedly yellow brush on the hind wing; it agrees with Zeller's figure of his *G. dorsivittella*. They may very probably be specifically distinct, although an intermediate variety in the collection of the Peabody Academy of Sciences, received from Mr. Chambers under the name of *Gelechia cristatella*, Cham., points to the possibility that these may be three varieties one species. I have at least two undescribed brush-bearing species from California and Oregon, in which I observe that the brush is much less developed in the female sex than in the male, although it cannot be said to be entirely absent from good specimens. In females which are much worn it cannot be detected. Dr. Clemens's type was probably a female.

93, 94, 95. ***Gelechia* (*Tachyptilia*) *rhoifrutella*.**

*Gelechia* (*Tachyptilia*) *rhoifrutella*, Clemens, Proc. Nat. Sci. Phil. 1860, p. 163; Tin. Nor. Am. p. 114, &c.

*Gelechia ochreocostella*, Chambers, Bull. U. S. G. & G. Surv. 1878, iv. p. 91.

? *Gelechia* (*Tachyptilia*) *consonella*, Zell. Verh. z.-b. Ges. Wien, 1873, p. 251.

This species, represented in Prof. Fernald's and Prof. Riley's collections, has also reached me from Texas, collected by Belfrage. It is, as Mr. Stainton remarks (Tin. Nor. Am. p. 114), nearly allied to the European *G. populella* (Wocke, Cat. 2091). One of the specimens in Fernald's collection is labelled "*viburnum*," and another in Riley's collection is labelled "*Depressaria viburnumella*, Cham." This may possibly indicate that it has been found to feed upon *Viburnum*, as well as upon *Rhus typhina*, the food-plant noticed by Clemens.\*

*D. viburnumella* is not included in Chambers's "Index," nor can I find any description of a species so named. The type of *G. ochreocostella*, Cham., kindly lent to me by Prof. Riley, is undoubtedly a worn specimen of *rhoifructella*. All the examples which I have examined appear to agree closely with Prof. Zeller's description of *Gelechia* (*Tachyptilia*) *consonella*, Zell., also from Missouri and Texas, which I strongly suspect to be the same species; and I have specimens from California, which show that it is widely distributed.

1031. ***Gelechia* (*Trichotaphe*) *ochripalpella*.**

*Gelechia* (*Trichotaphe*) *alacella*, Clem. Proc. Ent. Soc. Phil. i. p. 132.

*Gelechia* (*Trichotaphe*) *ochripalpella*, Zell. Ver. z.-b. Ges. Wien, 1873, p. 279.

*Gelechia goodelliella*, Cham. Cin. Soc. Nat. Hist. 1881, p. 289.

This is Mr. Chamber's type of *Gelechia goodelliella*, Cham.; and is equivalent to *Trichotaphe alacella*, Clem., which was rechristened by Zeller, owing to the name *alacella* being preoccupied in the genus *Gelechia*.

412. ***Gelechia* (*Trichotaphe*) *juncidella*.**

*Trichotaphe juncidella*, Clem. Proc. Ac. Nat. Sci. Phil. 1860, p. 166; Tin. Nor. Am. p. 122.

*Gelechia pallipalpis*, Walk. Cat. Lep. Het. B. M. xxix. p. 596.

*Depressaria* ? *dubitella*, Cham. Can. Ent. iv. p. 92.

*Gelechia dubitella*, Cham. Can. Ent. iv. p. 147.

*Gelechia* (*Cryptolechia* ?) *dubitella*, Cham. Bull. U. S. G. & G. Surv. 1878, iv. p. 86, and "Index."

*Gelechia juncidella*, Cham., "Index."

I have received this species from Miss Murtfeldt, who describes its larval habits (Can. Ent. vi. p. 221). Specimens received from Mr. Chambers are also in the collection of the Peabody Academy of Sciences, Salem, Mass., but these are in very bad condition. Good and well-marked examples agree with Walker's type of *Gelechia pallipalpis*, now in the British Museum, and with Clemens's *T. juncidella*, which latter name has precedence.

\* I received a series of these from Mr. James Angus, West Farms, N. Y., some of which, as he informed me, "fed on *Viburnum*," others "fed on Nanny berry."

—C. H. FERNALD.

208. ***Gelechia (Trichotaphe) purpureofusca***, sp. nov.—Labial and maxillary palpi and tongue all bright orange, the apical joint of the labials somewhat tinged with fuscous, shorter than the second joint, which is much thickened and tufted. Face smooth, iridescent steel-grey. Head and fore wings deep purplish fuscous in fresh specimens, assuming a brownish or more ochreous tinge when worn. The head and fringes in some lights have a bronzy grey metallic sheen. Abdomen and hind wings brownish fuscous, with scarcely paler cilia. The two anterior pairs of legs correspond in color to the fore wings, the third pair to the hind wings. Expanse 18 millim.

From Mr. Allen's and Prof. Fernald's collections.

511. ***Gelechia (Trichotaphe?) refusella***.

*Gelechia (Trichotaphe?) rufusella*, Cham. Can. Ent. vi. p. 240.

*Menesta rubescens*, Wlsm. P. Z. S. 1881, p. 319, pl. xxxvi. fig. 9.

This is a *Gelechia* probably belonging to the section *Trichotaphe*. I am at a loss to understand how I could have been induced, by the examination of a somewhat imperfect specimen, to regard it as belonging to the genus *Menesta*, Clem.

I have now seen several specimens of *Menesta tortriciformella*, Clem., as well as *Gelechia refusella*, Cham.; they are without doubt generically distinct—the antennæ of *Menesta* being strongly ciliated in the male, and the fore wings much shorter and more tortriciform than in any *Gelechia*.

891. ***Gelechia (Trichotaphe?) inserrata***, sp. nov.—Palpi pale yellowish cream-color, the second joint externally shaded *along its upperside* with brownish (differing from *serrativittella*, Zell., which has the brown shading *beneath* the second joint and at the end of the apical joint). Head and anterior portion of the thorax with the tegulæ pale yellowish cream-color. Antennæ brown, the two basal joints only being cream-colored. Fore wings and cilia brown, the costal half nearly to the apex pale yellowish cream-color, with no oblique projections from the dark portion, but with a single rounded excrescence or bulge about the middle of it. Hind wings and fringes grey, with a slender pale ochreous line along the base of the fringes. Abdomen ochreous, tinged with greyish fuscous. Expanse 15 millim.

This species appears to be intermediate between *G. serrativittella*, Zell., and *G. flavicostella*, Clem. Allied to the latter in the color of the palpi, and in the absence of a serrated edge to the dark dorsal portion of the wings, but differing from it in the less rounded apex, and narrower and less deeply colored fore wings, and in the absence of a long point from the costal streak running in the direction of the anal angle, as well as in its smaller size. More nearly allied to the former in size and color, but differing in the coloration of the palpi, in the absence of a serrated edge to the dark dorsal portion of the wing, and in its paler thorax. It is, however, perhaps slightly larger than *serrativittella*, having the fore wings more widened outwardly than in my specimen of that species,

although it does not differ from Prof. Zeller's figure (Verb. z.-b. Ges. Wien, 1873, t. iv. fig. 27) in this respect.

18, 743, &c. **Gelechia** (**Malacotricha**) **bilobella**.

*Gelechia* (*Malacotricha*) *bilobella*, Zell. Verh. z.-b. Ges. Wien, 1873, p. 280.

? *Begoe costalutella*, Cham. Can. Ent. ix. p. 24.

A specimen in Prof. Fernald's collection is labelled "*Nothris dolabella*, Zell., but the form and color of the palpi distinguish it from that species.

From a careful comparison of specimens and descriptions I find the best distinguishing marks between what I suppose to be *Nothris dolabella*, Zell., and *Gelechia bilobella* are the form and color of the palpi, which in the former have a projecting tuft under the second joint, with the extreme tip of the apical joint fuscous. In the latter no tuft on the second joint, and the tip of the same color as all their upper surface, quite pale ochraceous. The supposed type of *Nothris eupatoriella*, Chambers, received from Mr. Goodell, very obviously agrees in these particulars with the latter form; whereas Chambers's description of *N. eupatoriella* agrees better with the former. I think therefore that Mr. Goodell's specimen must be one of Chambers's series, but not the actual specimen from which the description was taken, and that in this series the two species must have been mixed.

This is, moreover, a somewhat peculiar variety, differing from both the species described by Zeller in having the pale ochreous ground-color of the fore wings suffused with iron-grey, and with a distinct yellow ochreous margin to the dark streak internally: the patch on the dorsal margin is also separated from the base. I believe it to be a variety of *G. bilobella*, but it may possibly prove to be a distinct but closely allied species.

Chambers's description applies correctly to what I believe to be the true *Trichotuphe setosella*, Clem. (*Nothris dolabella*, Zell.), whereas Mr. Chambers's *Begoe costalutella*, Can. Ent. ix. p. 24 (afterwards printed *Begoe costolutella* in his "Index"), is probably *Gelechia bilobella*, Zell. Both these two forms have short maxillary palpi. Should they not therefore be both separated from *Nothris*, which, I believe, has no maxillary palpi? or are we to follow Herrich-Schäffer and others in regarding *Nothris* as inseparable from *Gelechia*?

#### Genus **YPSOLOPHUS**.

**Ypsolophus roseocostellus**, sp. nov.—Palpi with the second joint and its projecting tuft triangular, externally fuscous, except a narrow whitish cinereous margin along its upper edge; apical joint whitish cinereous; antennæ faintly annulated with fuscous and pale cinereous. Head and thorax pale cin-

ereous, with a faint rosy tinge. Fore wings elongate, wider than *Y. pometellus*, Harris, having the apical margin less oblique than in *punctidiscellus*, Clem., pale cinereous with a slight reddish tinge, which is especially noticeable along the costa and around the apical margin, with some scattered fuscous scales and spots, a small fuscous spot immediately above the fold at the basal fourth of the wing, with sometimes a few fuscous scales on the opposite side of the fold; a fuscous spot on the middle of the fold, sometimes followed by a few whitish scales, another on the disc obliquely above and *beyond* it (in *Y. punctidiscellus*, Clem., this is *before* it), also followed by whitish scales. Beyond this is another fuscous spot on the end of the cell, preceded by a few whitish scales, from which two oblique lines of fuscous scales are traceable in fresh specimens proceeding outwards to the discal and costal cilia; some fuscous scales before the apical margin sometimes assume the form of a line of fuscous spots in the rosy margin of the wing. Cilia cinereous, with a rosy tinge, and a faint fuscous line along their middle. Hind wings shining pale greyish, with scarcely paler cilia, along the base of which is a very narrow ochreous line. Abdomen pale grey; anal tuft tipped with ochreous. Expanse 17 millim.

One in my collection received from Miss Murtfeldt from St. Louis.

One in the collection of Professor Fernald.

It is smaller than *Y. queriellus*, Cham.; and that species, by Mr. Chambers's description, appears to have no discal or plical spots.

28, &c. ***Ypsolophus bipunctellus***, sp. nov.—Palpi whitish ochreous, the tufted second joint with a triangular brown patch reaching nearly to the pale upper end of the fringe; apical joint with a distinct brown streak along its under side to the apex; head whitish ochreous. Thorax and fore wings pale brownish ochreous, dusted with more or less widely scattered black scales; a rather elongate black discal dot before the middle, equidistant from the costal and dorsal margins, having a few whitish scales along its anterior and lower edges, followed by a smaller black dot at the end of the cell, also surrounded on its anterior and lower edge by whitish scales; a row of about 8 marginal black dots around the apex and apical margin. In many specimens (see No. 48 of this list) a fuscous streak commences at the first discal spot and is diffused outwardly beyond the second spot to the apex. Hind wings pale greyish ochreous, with a faint fuscous line near the base of the pale cilia. Abdomen greyish. Expanse 17 millim.\*

This species is nearly allied to *Y. stramineellus*, Cham., but differs from it in the presence of two distinct discal spots, and in its slightly wider wings, which are, however, much narrower than those of the species which I take to be *Y. unripunctellus*, Clem. I have not observed the distinct line along the underside of the apical joint of the palpi in any of the species allied to this.

47, &c. ***Ypsolophus pometellus***.

*Rhinosia pometellus*, Harris, Journ. N. Y. S. A. Soc., Sept. 1853.

*Chætochilus pometellus*, Fitch, Rep. Nox. Ins. N. Y. no. 1, p. 221, no. 3, sec. 42.

*Rhinosia pometella*, Emmons, Nat. Hist. N. Y. part v. p. 254.

*Ypsolophus pometellus*, Chambers, Bull. U. S. G. & G. Surv. iv. p. 166.

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\* Habitat, Orono, Me., May 1, 1881.—C. H. FERNALD.

*Ypsolophus pauciguttellus*, Clemens, Proc. Ent. Soc. Phil. ii. p. 124; Tin. Nor. Am. p. 228; Zeller, Verh. z.-b. Ges. Wien, 1873, pp. 283-285.

*Chætochilus contubernatellus*, Fitch, Rep. Nox. Ins. N. Y. no. 1, p. 231, no. 3, sec. 44.

*Ypsolophus contubernatellus*, Chambers, Bull. U. S. G. & G. Surv. iv. p. 166.

*Ypsolophus flavivittellus*, Clemens, Proc. Ent. Soc. Phil. ii. p. 429; Tin. Nor. Am. p. 254; Zeller, Verh. z.-b. Ges. Wien, 1873, pp. 283-285.

*Ypsolophus reedella*, Chambers, Can. Ent. iv. p. 222.

*Ypsolophus rudarella*, Chambers, Bull. U. S. G. & G. Surv. iv. p. 167.

*Ypsolophus quercipomonella*, Cham. Can. Ent. iv. pp. 222, 223; Bull. U. S. G. & G. Surv. iv. p. 167.

? *Dichomeris ligulella*, Hüb. Zütrage, p. 143, — ? = var. *contubernatellus*.

A specimen of this species in Prof. Riley's collection is labelled "Palmer worm-moth." Under this name it was originally described as *Rhinosia pometellus* by Dr. Harris. It was placed by Dr. Fitch in the genus *Chætochilus*, who also described the variety called the "comrade Palmer worm" (*Chætochilus contubernatellus*), met with in company with the typical form, and regarded by him as a distinct species, although he was not without suspicions that it might be only a variety. Dr. Clemens subsequently described the typical form as *Ypsolophus pauciguttellus* and the variety as *Ypsolophus flavivittellus*. Mr. Chambers's type of the *Ypsolophus reedella*, in the collection of the Peabody Academy of Sciences of Salem, cannot be separated from *Y. pauciguttellus*, Clem.; and he himself suggests in his "Index" that it may be a variety of *Y. pometellus*. Specimens of the same form in Prof. Fernald's collection, obtained from Miss Murtfeldt, are labelled *Ypsolophus quercipomonella*, Cham., but do not agree with his description. It would be interesting to know if this name was suggested by Miss Murtfeldt from a knowledge of their larval habits. Their excellent condition suggests the idea that they may probably be bred specimens.

Professor Zeller (*loc. cit.*) first drew attention to the probability that Clemens's name *pauciguttellus* must give way to the earlier name *pometellus* of Harris, and that *flavivittellus*, Clem., was the same as *contubernatellus*, Fitch.

From intermediate varieties which have reached me from more than one of my American correspondents, and which show some or all the discal and plical spots as in *Y. pometellus*, and have the pale costal halt of the wing more or less clearly defined as in *Y. flavivittellus*, I am convinced that these will be found to be different forms of the same species. Dr. Fitch (*loc. cit.*) describes a larva differing from the larva of his *Chætochilus pometellus*, which he regards as probably that of *C. contubernatellus*; but as he failed to verify this by rearing the moth from it, evidence of their distinctness in the larval stages is entirely



wanting, unless the rather doubtful differences between Chambers's larva of *quercipomonella*, and Fitch's larva of *pometellus*, as described by them, can be regarded as sufficient to establish it. It will be admitted that Chambers's description cannot possibly be intended to indicate the black-headed larva, which I take to be erroneously associated with *Y. contubernatellus* by Fitch. It seems to me impossible to separate specifically the oak-feeding from the apple-feeding varieties; but a careful comparison of their larvæ is necessary before a final decision can be arrived at.

#### Genus **NOTHRIS.**

##### 743. **Nothris setosella.**

*Tricholaphe setosella*, Clem. 1860, T. N. A. p. 121.

*Ypsolophus eupatoriella*, Cham. Can. Ent. iv. p. 221.

*Nothris dolabella*, Zell. Verh. z.-b. Ges. Wien, 1873, p. 288.

*Nothris eupatoriella*, Cham. B. U. S. G. S. iv. 1878, p. 158.

This should stand as *Nothris setosella*, Clem. The form and coloring of the palpi at once distinguish it from *Gel. bilobella*, Zell. Clemens's description is not a good one; he omits to notice the discal spot and the darkened apical portion of the fore wings; it was evidently taken from a somewhat worn specimen. I have been to some extent guided to the conclusion that this is Clemens's *T. setosella* by having seen a specimen so named in the late Mr. C. T. Robinson's collection at New York. I do not remember to have seen Clemens's type at Philadelphia, but Mr. Robinson was probably acquainted with the species described by him.

#### Genus **HELICE.**

727. **Helice pallidochrella**, Cham. Can. Ent. v. p. 188.

*Helice* (*Gelechia*) *pallidochrella*, Cham. "Index."

*Gelechia gleditschiæella*, Cham., see "Index."

This is evidently the species described by Mr. Chambers under the above name, but some mistake has undoubtedly been made in the original generic description. Mr. Chambers writes of his genus *Helice* (Can. Ent. v. p. 188), "Secondaries narrower than the primaries; apex long and sharply pointed, with the posterior margin suddenly and deeply incised beneath it and the anal angle rounded." In Can. Ent. vii. p. 106, Mr. Chambers states that "*Sinoe*, *Helice*, and *Agnippe* resemble *Laverna* in having raised tufts of scales on their wings." The specimen before me (Mr. Chambers's own specimen from Miss Murtfeldt's collection) has the hind wings narrow and evenly attenuated from near the base, not incised below the apex, and it has no signs of any raised tufts of scales on the fore wings. Mr. Chambers probably placed it in the genus *Gelechia*, under the name of *Gelechia gleditschiæella* (Index,

p. 144), having regard to the description which he had given of the form of the hind wings; but lacking this character it is not a true *Gelechia*.

I can find no description of *Gelechia gleditschiæzella*, and no other reference to it than that contained in the "Index" to "vol. x. p.," which is not correct, the species not being noticed in that volume.

#### Genus **CARPOSINA.**

102. **Carposina crescentella**, sp. nov.—Palpi with second joint enlarged, somewhat claviform, third joint short and blunt, both fuscous tipped with whitish. Head greyish fuscous, the face somewhat paler; tongue yellowish, naked; antennæ of the male strongly ciliated, of the female simple, greyish fuscous. Fore wings whitish grey, mottled with greyish fuscous; the costa greyish fuscous at the base, with about six diffuse greyish-fuscous spots along the costal margin, the first and least conspicuous being before the middle, the others at or beyond it; diffuse spots of greyish fuscous are continued around the apical margin, each throwing a shade of the same color through the greyish cilia; there is a dark-margined white crescent-shaped mark at the end of the cell, the upper portion of which contains some bright ochreous scales; this is preceded and followed by greyish-fuscous blotches. Immediately below the costal margin and before the middle is a short bright ochreous longitudinal streak, below which an irregular greyish-fuscous shade extends to the dorsal margin. On the outer edge of the dark costal patch at the base is an oblique bright ochreous streak, not reaching the costa, and below this, about the base of the dorsal margin, is a small greyish-fuscous blotch. Hind wings pale greyish fuscous, the cilia having a slight brownish-ochreous tinge. Anal tuft ochreous. Posterior tibiæ pale ochreous above; the tarsi fuscous, spotted with pale ochreous at the joints. Exp. ♂ 17, ♀ 16 millim.

I have at least one other species of this genus from California.

#### Genus **LECITHOCERA.**

565. **Lecithocera? flavistrigella**, sp. nov.—Head rough, yellowish, tinged with ferruginous on the frontal tuft. Labial palpi rather short, depressed, with projecting bristles at the outer side on the second and apical joints, the apical joint fuscous. Maxillary palpi well developed. Antennæ fully as long as the fore wings, stout, setaceous, pale yellow. Thorax and fore wings purple; the fore wings oblong ovate, with a long yellow outwardly widening basal streak reaching near to an oblique yellow dorsal spot before the dorsal cilia, beyond which on the costa is a rather larger spot of the same color; the cilia at the extreme apex shining yellowish grey, above and beneath fuscous. Hind wings lanceolate, pale purplish, with fuscous cilia. Abdomen and third pair of legs greyish-fuscous, the tibiæ densely pilose. Expanse 9 millim.

The labial palpi are shorter than in *Lecithocera laticornella*, Zell. Having only one specimen in my own collection, the other belonging to the Am. Ent. Soc. Phil., I do not examine the neurulation. Its long and thick antennæ agree well with the genus in which I have placed it, and of which I have one or more other species from California.

Genus **EGOCONIA.**

417. **Egoconia latipennis**, sp. nov.—Palpi pale ochreous, the second joint with a fuscous patch at the base externally, apical joint with a fuscous spot beneath at its base. Tongue pale ochreous, the maxillary palpi tinged with fuscous. Head pale ochreous. Antennæ very thick, with a serrated appearance beneath, brownish fuscous above, pale ochreous beneath and at the joints. Thorax pale ochreous, tinged anteriorly with brownish fuscous. Fore wings with the costa rather straight, beyond a slight bulge near the base; apex rounded, apical margin somewhat oblique, slightly convex. Dorsal margin straight, nearly parallel with the costal, pale ochreous, much suffused and irregularly clouded with brownish fuscous, which occupies the whole of the costal and apical portions of the wing, except a pale fascia, commencing at the costal cilia, turning outwards at a right angle at the apex of the cell, then again downwards to the anal angle; the apical margin and the dorsal half of the wing are also chiefly pale ochreous, enclosing one plical and two discal diffused brownish-fuscous spots, of which the outer one near the end of the cell is the most conspicuous; cilia tinged with greyish fuscous. Hind wings very pale cinereous; fringes greyish fuscous, with a pale ochreous line along their base. Expanse 18 millim.\*

This species has much broader wings than the European *Egoconia quadripuncta*, Haw.; but the colors are much the same, although differently arranged. The only specimen I have seen is in somewhat imperfect condition; it is in the collection of the Am. Ent. Soc. Philadelphia.

Genus **PIGRITIA.**224. **Pigritia laticapitella.**

*Pigritia laticapitella*, Clem. Proc. Ac. Nat. Sci. Phil. 1860, p. 173; Tin. Nor. Am. pp. 41, 136.

*Blastobasis? aufugella*, Zeller, Verh. z.-b. Ges. Wien, 1873, p. 300.

*Dryope murtfeldtella*, Cham. (partim) Can. Ent. vi. p. 50.

This specimen received from Mr. Chambers, is in the collection of the Peabody Acad. Sci. Salem, Mass. I have little doubt that this is *Blastobasis? aufugella*, Zeller, the description of which agrees extremely well with light well-marked varieties of this species. Prof. Zeller, after comparing it with *Blastobasis phycidella*, its resemblance to which is also noticed by Mr. Stainton (Tin. Nor. Am. p. 136), expresses some doubt whether it should be rightly included in the genus *Blastobasis* or classed with *Hypatima*, which it resembles in the absence of a notch at the base of the antennæ of the males. Probably it will be convenient for the present at least, to retain Clemens's genus *Pigritia*. Mr. Chambers described (Can. Ent. vi. p. 50) two varieties of his *Dryope murtfeldtella*, one of which he writes "should perhaps be regarded as a distinct species." A specimen received from Mr. Goodell, referred to in his list as "*Dryope murtfeldtella*, Chambers type," undoubtedly belongs

\* Habitat, Orono, Me.—C. H. FERNALD.

to this possibly distinct variety, and is equivalent to *Pigritia ochrocomella*, Clemens.

Genus **BLASTOBASIS.**

104, 741, 742. **Blastobasis glandulella.**

*Gelechia glandulella*, Riley, Can. Ent. iii. p. 18?

*Blastobasis nubilella*, Zell. Verh. z.-b. Ges. Wien, 1873, p. 297; 1875, p. 139.

*Holcocera glandulella*, Riley, Can. Ent. vi. p. 18, &c., see "Index."

*Blastobasis glandulella*, Chambers, Index.

Prof. Zeller (Verh. z. b. Ges. Wien, 1875, p. 139) suggests that most probably his *Blastobasis nubilella* is the species described by Riley as *Holcocera glandulella*. I have several specimens of *B. glandulella* which undoubtedly agree with Zeller's figure and description of *B. nubilella*; but Prof. Riley's own authority is desirable to confirm the opinion that they are one species.

Genus **GRACILARIA.**

1029. **Gracilaria swederella**, Thnb.

*Gracilaria alchimiella* (Wocke, Cat. 2317).

*Gracilaria superbifrontella*, Clem. Proc. Ac. Nat. Sci. Phil. 1861, p. 5; Tin. Nor. Am. p. 91, &c., see "Index."

*Gracilaria packardella*, Cham. Can. Ent. iv. p. 27, &c., see "Index."

*Gracilaria elegantella*, F. & B. S. e. Z. xxxiv. pp. 202, 203.

This specimen in Mr. Goodell's collection is labelled "*G. packardella*, Cham."

Although the pale costal patch occupies a larger proportion of the fore wing than is usual in our European *swederella*, it seems extremely doubtful whether this can be regarded as specifically distinct. *G. swederella* varies in this respect, and often approaches very closely to the specimen before me. I have received others from Miss Murtfeldt as *G. packardella*, Cham.; there is a similar specimen in the Peabody Academy of Sciences at Salem, received from Mr. Chambers himself, under the same name.

These differ from the present example in the somewhat less extended costal patch, being incised beyond the middle of its lower margin by a projection from the darker dorsal portion of the wing. *G. swederella* often approaches this form also; and until more evidence has been obtained, the distinctness of *G. packardella* from *G. superbifrontella* must be at least open to doubt.

I find these two varieties referred to in my notes on Dr. Clemens's types of *G. superbifrontella*, written at Philadelphia in 1872, where they were both placed under the same name.

Dr. Clemens himself suggested (Tin. Nor. Am. p. 91) that *G. superbifrontella*, Clem., must be closely allied to the European *G. swederella*;

and Mr. Chambers (Can. Ent. ix. p. 195) writes of *G. packardella* :—  
“It is allied to *superbifrontella* and *swederella* more closely than to any other species.

*G. swederella* feeds in Europe, so far as I am aware, upon oak alone; *G. superbifrontella* feeds, according to Dr. Clemens, on *Hamamelis virginica* (Wych hazel), according to Frey and Boll upon oak.

Of *G. packardella*, Mr. Chambers writes (Can. Ent. iv. p. 27), “from circumstances I suspect it to be an oak-feeding species;” but he subsequently recognizes *G. elegantella*, Frey and Boll, as his *G. packardella*; and in answer to the doubt expressed by those authors whether their species was bred from oak or maple, he writes (Can. Quart. Journ. Sci. ii. p. 227):—“I have long known the larva on maple, and last fall succeeded in breeding *G. packardella* from it.”

There must surely be some mistake among these different observations, unless the larva of *G. swederella* is polyphagous in America. It is not clear from Chambers's description in what points *G. packardella* differs from *G. superbifrontella* in the perfect state; nor does the description of *G. elegantella* appear to show any very reliable distinctive differences. But I am well aware that Mr. Chambers has much better opportunities for judging in this matter than I can have. His final decision will be accepted by no one more readily than myself; but I hope these remarks may induce him to compare his specimens with Dr. Clemens's type and to express his matured opinion.

### 32, 33. ? *Gracilaria coroniella*.

*Gracilaria coroniella*, Clem. Proc. Ent. Soc. Phil. ii. p. 421, v. p. 145; Tin. Nor. Am. p. 243.

These two specimens are labelled, “Bred from *Betula alba*.” I have little doubt that they belong to the species described by Dr. Clemens under the above name (see Tin. Nor. Am. p. 243), from a single hibernated specimen.

The “small costal pale yellow spot,” “a little posterior to the triangular patch,” is not noticeable in these specimens, which agree in all other respects with the description.

This species is very nearly allied to *Gracilaria stigmatella*, Fab. (Wocke, Cat. 2320), from which it differs in its paler head and thorax and its somewhat narrower fore wings, also in the pale costal patch occupying a somewhat larger proportion of the wing-surface, and being cut off obtusely on the fold, not prolonged outwards in a slight point beneath. Moreover the larvæ of *G. stigmatella* feed upon poplar, willow, and sallow, but not (so far as I am aware) upon birch. A single speci-

men in Mr. Walsh's collection, of which I have a short note, was destroyed in the Chicago fire.\*

825. **Gracilaria elongella**, var. ? (Wocke, Cat. 2331).

Greatly as this appears to differ from the typical *G. elongella* (813, 814), I am disposed to regard it as a form of that most variable species, approaching, if not identical with, *G. roscipennella*, Hüb. A long series of *G. elongella*, taken by me in California and Oregon, includes this form and almost every possible gradation between this and the typical *G. elongella*. *G. roscipennella*, Hüb., is figured in Her.-Schäff. Schmet. v. Eur. pl. 95. fig. 732. I have never seen a European specimen agreeing with this figure, and there may possibly be evidence of its distinctness with which I am unacquainted and which may have induced Dr. Wocke to maintain the name in his Catalogue (No. 2331), although he himself regards *G. roscipennella*, Treitsche, as referable to *G. elongella*.

1241, 1242. **Gracilaria robiniella**.

*Parectopa robiniella*, Clem. Proc. Ent. Soc. Phil. ii. p. 4; Tin. Nor. Am. p. 207.

*Gracilaria robiniella*, Cham., see "Index."

*Parectopa lespedezaefoliella*, Clem. Proc. Ac. Nat. Sci. Phil. 1860, p. 210; Tin. Nor. Am. p. 144.

*Gracilaria lespedezaefoliella*, Cham., see "Index."

*Gracilaria mirabilis*, F. & B. S. e. Z. xxxiv. p. 212.

In my copy of Mr. Stainton's edition of Clemens's paper (Tin. Nor. Am. p. 145), I find that Dr. Clemens states that his *Parectopa lespedezaefoliella* has "two silvery white spots" on the costa. A marginal note on this page, made after an examination of the type of this species at Philadelphia, reminds me that it has "three decidedly." Moreover my note on comparing this with the type of *P. robiniella* at the same time is, "scarcely to be separated. I cannot, with a strong glass, detect the slightest difference." A figure of *Gracilaria mirabilis*, F. & B., taken from a specimen in Mr. Stainton's collection, confirms Mr. Chambers's view that this species is equal to *G. robiniella*, Clem. (see Index).

Mr. Stainton has kindly added a footnote to the figure, "= *Parectopa lespedezaefoliella*." These three names have therefore been given to the same species.

#### Genus **ORNIX**.

1142. **Ornix anglicella**, Stn. (Wocke, Cat. 2366).

I am unable to distinguish this from the common European *Ornix anglicella*. It may possibly have been described under another name in America, but I have not been able to recognize it.

\* Habitat, Orono, Me.—C. H. FERNALD.

1015, 1016. **Ornix**, sp. (*prunivorella*, Cham.?).

*Lithocolletis geminatella*, Pack.

I think these may be *Ornix prunivorella*, Cham., although that author does not record that the larva of that species feeds on apple or pear. These specimens are not in good condition, and it is impossible, in so difficult a genus as *Ornix*, to be quite certain to what species they belong.

They are the types of *Lithocolletis geminatella*, Packard, according to the label attached to the second specimen, but they undoubtedly belong to the genus *Ornix*.

#### Genus **COLEOPHORA.**

##### 705. **Coleophora leucochrysellæ.**

*Coleophora leucochrysellæ*, Clem. Proc. Ent. Soc. Phil. ii. p. 6; Tin. Nor. Am. p. 211.

*Coleophora argentella*, Cham. Can. Ent. x. p. 112, and "Index."

*Coleophora argentialbella*, Cham. Can. Ent. vii. p. 75.

This is *C. argentella* of Chambers's "Index," the larger of the two distinct species, both called by him *Col. argentialbella*. In Can. Ent. vii. p. 75, Mr. Chambers describes this species thus, "apical part of the primaries very sparsely dusted with scattered dark brown scales;" adding, "four specimens, only one of which exhibits the dusting." *Coleophora leucochrysellæ*, Clem., expands  $\frac{1}{2}$  an inch, and is the same as *L. argentella*, but without the dusting. It has much the appearance of *Coleophora ibipennella*, Zell. (Wocke, Cat. 2423), but without a knowledge of the larval case it would be premature to express any certainty as to its identity.

It is not impossible that Mr. Chambers may have had two distinct species before him when describing his two varieties of *C. argentella*.

##### 1180, 1181. **Coleophora malivorella.**

*Coleophora malivorella*, Riley, Agricul. Rep. 1878, pp. 48, 49, pl. vii. fig. 1.

*Coleophora multipulvella*, Cham. Bull. U. S. G. & G. Surv. iv. p. 93.

These specimens were kindly lent by Prof. Riley. The species has much the appearance of the European *Coleophora hemerobiella*, Zell., which also feeds on apple, but the case of the larva is of quite a different form.

Mr. Chambers's description of his *C. multipulvella* precisely agrees with specimens received from Prof. Riley; but I have not seen his type.

#### Genus **LAVERNA.**

240. **Laverna subiridescens**, sp. nov.—Maxillary palpi short. Labial palpi (having the third joint half the length of the second, coarsely scaled and abruptly pointed), whitish grey, with the scales tipped with fuscous on their outer sides. Antennæ with enlarged basal joint brown. Head cinerous, face paler;

tongue probably broken off. Thorax cinereous. Fore wings dirty whitish along the dorsal margin below the fold, sparsely dusted with cinereous scales. Brown above the fold, much sprinkled with cinereous and rosy iridescent scales; a broad oblique dirty whitish streak from the costal cilia before the apex, containing a line of brown scales, meets a similar but less conspicuous streak from the dorsal margin at an acute angle before the apex, in which are two dark lines, one at the base, the other at the ends of the apical cilia; within the lower margin of the darker portion of the wing are two considerable tufts of raised scales of the general hue, the first slightly before the middle, the second nearly halfway from this to the apex; dorsal cilia cinereous. Hind wings cinereous, with a slight greyish iridescent tinge; cilia cinereous. Abdomen missing. Expanse 20 millim.

This species is nearly allied to *Laverna idæi*, Zell. (Wocke, Cat. 2569).

One in Prof. Fernald's collection.\*

225, 226, 645, 646. ***Laverna? eloisella*.**

*Laverna eloisella*, Clemens, Proc. Ac. Nat. Sci. Philad. 1860, p. 171; Tin. Nor. Am. p. 131; Can. Ent. ix. p. 74.

*Laverna? ænothærella*, Chambers, Can. Ent. vii. p. 30.

*Phyllocnistis magnatella*, Zeller, Verh. z.-b. Ges. Wien, 1873, p. 315.

*Laverna? magnatella*, Chambers, Can. Ent. ix. pp. 73, 74; Bull. U. S. G. & G. Surv. 1878, iv. p. 152.

My notes on this species confirm my belief that it is the original *Laverna eloisella*, Clem. Two specimens in Prof. Fernald's collection are labelled "from stems of *Ænothera*, Orono." I have received it from Miss Murtfeldt; and have taken it in Oregon on Rouge River."

When looking over Dr. Clemens's types at Philadelphia, I made the following note on *Laverna eloisella*:—"Not a *Laverna*. Only two wings, both worn, remain. Identical with my two from Rouge River."

In my notes on Mr. Robinson's collection in the Central Park Museum, New York, I find—"Clemens's description of *L. eloisella* seems to have been taken from a worn specimen."

I confess there is much difficulty in reconciling the original description with the specimens now before me; but if the wings I saw at Philadelphia were those of Clemens's type, they belong without doubt to the same species. Mr. Chambers, Can. Ent. ix. p. 74, writes, "I have never seen *L. eloisella*, Clem., but I suspect that it will be found congeneric with this species" (*Laverna? magnatella*). The specimens vary in the extent and intensity of their different markings, and, like all internal feeders, are very subject to injury by grease.

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\* Habitat, Labrador. Collected by Mr. William Cowper.—C. H. FERNALD.



30, 215. **Laverna subbistrigella**, Haw. (Wocke, Cat. 2583).

My British specimens of this species, having been all taken after hibernation, are slightly paler than the American examples in Prof. Fernald's collection;\* but I am unable to separate them by any differences of specific value.

The species has not hitherto been recorded from America. I met with it myself in California in 1871.

31, 57, 129, 130. **Laverna decorella**, Stph. (Wocke, Cat. 2582).

? *Laverna unifasciella*, Chambers, Can. Ent. viii. p. 159.

I am unable to distinguish these specimens from *Laverna decorella*, a species not hitherto recorded as occurring in America. Mr. Chambers describes his *Laverna unifasciella* as allied to *L. murtfeldtella*, Chamb., and the preceding species (*L. bifasciella*, Ch.), but still more nearly to *L. decorella*, Steph.,” received from “Behrens, San Francisco.” I met with *L. decorella* myself near San Francisco in 1871, at the end of April, and in Mendocino county, California, in the following month, and am strongly disposed to think that Mr. Chambers's *L. unifasciella*, which I have not seen, is the same species.†

902. **Laverna luciferella**.

*Laverna luciferella*, Clem. Proc. Ac. Nat. Sci. Phil. 1860, p. 171; Tin. Nor. Am. p. 130.

*L. cephalanthiella*, Cham. Can. Ent. iii. p. 221, vii. p. 53, xi. p. 7, and Index.

A specimen of *L. cephalanthiella*, Cham., received from Mr. Chambers himself, is in the collection of the Peabody Academy of Sciences, Salem, Mass. I have carefully compared it with an example of *Laverna luciferella*, Clem., with which it agrees.

#### Genus **WILSONIA**.

1019. ? **Wilsonia brevivittella**.

*Wilsonia brevivittella*, Clem. Proc. Ent. Soc. Phil. ii. p. 428; Tin. Nor. Am. p. 254.

*Laverna ænothærovella*, Cham. MS.

*Laverna ænothæresminella*, Cham. Can. Ent. viii. p. 138, xi. p. 6.

This stands as *Laverna ænothæresminella* in the “Index,” and is the same as specimens received by me from Miss Murtfeldt. I feel sure that it is Clemens's *Wilsonia*, the peculiar palpi are well described by Clemens.

The specimen before me is in Mr. Goodell's collection, and is stated in his list to be the “type” of *L. ænothærovella*, Cham.

It would be well to compare specimens with the type of Clemens's *Wilsonia*, in order to remove any possible doubt that may remain after studying the descriptions.

\* Habitat, Orono, Me.—C. H. FERNALD.

† Ibid.

Genus **STILBOSIS.**

372, 1020, &c. **Stilbosis tesquella.**

*Stilbosis tesquella*, Clem. Proc. Ac. Nat. Sci. Phila. 1860, p. 170; Tin. Nor. Am. pp. 40, 129.

*Stilbosis tesquella*, Cham. "Index."

*Laverna ? quinquecristatella*, Cham. Cin. Soc. Nat. Hist. 1881, p. 5.

Mr. Chambers's type of *Laverna quinquecristatella* in Mr. Goodell's collection proves that this name must give place to that which accompanies Dr. Clemens's prior description of the same species.

I think I can detect very short maxillary palpi not mentioned by Dr. Clemens.

*Walshia amorphella*, Clem., as noticed below, has also been placed by Mr. Chambers in the genus *Laverna*, to which it undoubtedly has the appearance of being allied.

Genus **WALSHIA.**

977. **Walshia amorphella**, Clem. Proc. Ent. Soc. Phil. ii. p. 419.

*Laverna miscecolorella*, Cham. Can. Ent. vii. p. 51.

This type of *L. miscecolorella*, received from Mr. Chambers, and preserved in the collection of the Peabody Academy of Sciences at Salem, agrees with my examples of *Walshia* compared with Clemens's type at Philadelphia in 1872.

Genus **SCHRECKENSTEINIA.**

827, 828. **Schreckensteinia festaliella**, Hub. (Wocke, Cat. 2705).

This generic name adopted in Wocke's Catalogue should probably take precedence of *Chrysocorys*, under which name, following Dr. Jordan and Mr. Stainton, I referred this species to the Pterophoridae (Pter. Cal. & Or pp. 1, 2). Its larval habits, especially in the formation of an open network cocoon before pupation, give rise to considerable doubt whether it can rightly be included in that family.

Mr. Chambers places his beautiful *Lithariapteryx abronizella* among the Glyphipterygidae, but it agrees in neuration and in the form of the wings almost exactly with *Schreckensteinia*. Their oral parts are also very nearly similar. In having no maxillary palpi it would appear to approach the subfamily of Elachistina rather than the Glyphipterygina.

Genus **COSMOPTERYX.**

228, 229. **Cosmopteryx fernaldella**, sp. nov.

There are two specimens of a new species of *Cosmopteryx* in Prof. Fernald's collection, for which I propose the above name. This is a most interesting species, very closely allied to the European *Cosmopteryx lienigiella*, Zell. (Wocke. Cat. 2709), differing from it in the following particulars. The upper median streak before the first fascia is short and

disconnected, not continued to the base of the wing. The apical streak is rather more slender, and the black spot on the saffron-yellow space between the golden bands is decidedly elongate, whereas in *lienigiella* it is not longer than its width. It would be interesting to learn whether any species of *Arundo* grows where these specimens were taken. Its larvæ may possibly be found to have similar habits to those of *lienigiella*, which mine the leaves of *Arundo phragmites* in August and September. Postponing for the present a more detailed description, I have named it after my friend Professor C. H. Fernald, to whom I am greatly indebted in my studies of North American Tineidæ and Tortricidæ, and whose labors upon the latter of these two families promise to yield valuable results.

1189. **Cosmopteryx lespedezeæ**, sp. nov.

This is a beautiful new *Cosmopteryx* in Prof. Riley's collection, labelled "*Cosmopteryx* on *Lespedeza*, Boll." Nearly allied to *C. clemensella*, Stn., and possibly to *C. montisella*, Cham.; differing from *clemensella* in having the outer margin of the dark basal portion of the wing more oblique, the two middle silver streaklets preceding the orange band rather longer, and especially in the annulation of the antennæ. *C. clemensella* has a broad white band about  $\frac{2}{10}$  of an inch wide at the commencement of the outer third of the antennæ, preceded and followed by equally wide dark bands, the apex being widely white.

The species now before me has the wide dark band before the white apex; but this is preceded by a very narrow white band, which in its turn is preceded by an equally narrow dark one. In other respects it closely resembles *C. clemensella*, the orange band being pale as in this species. *C. montisella* is described as having a dorsal and an apical streak beyond the orange fascia; this species has only an apical.

Genus **BATRACHEDRA.**

1229, 1230. **Batrachedra rileyi**, sp. nov.—Bred from rotten cotton-bolls. Head chestnut-brown; palpi widely divergent, whitish, with an oblique pale brown mark on each side near the end of the second joint, and two or three brownish spots on the sides of the apical joint. Antennæ with white and fuscous annulations; the basal joint elongate, chestnut brown. Fore wings chestnut-brown, slightly shaded with fuscous towards the costal margin; a whitish ochreous streak at the base of the dorsal margin, followed by two or three other smaller ones along the dorsal margin (in some specimens these are obsolete); above the dorsal margin are two oblique whitish ochreous streaks, the first before the middle, the second before the anal angle. A similar streak from the costal margin immediately before the apex is outwardly margined by a streak of black scales, the apex and apical margin being also black; there is also a faint fuscous streak running downwards through the cilia below the apex. On the cell are two elon-

gate patches of black scales, one immediately before the middle of the wing, the other halfway between this and the base. Fringes grey, with a slight yellowish tinge. Hind wings pale greyish. Hind tibiæ greyish white, outwardly fuscous; hind tarsi whitish, with a wide fuscous band followed by two fuscous spots on their outer sides. Expanse 11 millim.

This is a most interesting species, nearly allied to *Batrachedra ledereriella*, Zell., which Monsieur Milliére has bred from larvæ, feeding in the webs of the gregarious larvæ of *Liparis chrysorrhæa*, Lin. I have also bred it from among old webs of other larvæ and of spiders on branches of different species of *Mimosa* and other shrubs, also from old galls on *Pistachia terebinthus* and a species of *Cornus* (?) in the south of France, these galls containing numerous webs of spiders. I have found larvæ of *Batrachedra præangusta* among the cotton-like seeds of willow (*Salix caprea*), and in one instance in a goldfinch's nest lined with that substance. The habitat of the larva of this new species is particularly interesting, confirming these observations as to the substances chosen for food by the known species of this genus. It would be desirable to ascertain whether the larva of *Batrachedra salicipomonella*, Clem., bred from galls on *Salix cordata* by the late Mr. B. D. Walsh and Dr. Clemens, finds any similar source of nutriment in or among the galls which it frequents.

Genus **IDIOSTOMA**, Wism.

445. **Idiostoma americella**, sp. nov.

Antennæ pale straw-color. Labial palpi straw-white, widely diverging, the apical joint as long as the very slightly stouter second joint. Maxillary palpi clothed with long, straight, straw-white hairs, projecting downwards. In the Proc. Ent. Soc. London, 1881, p. 273, pl. xiii. f. 42, I described this genus, from a single South-African specimen, under the name of *Idioglossa*, as having tufts of hair-like scales at the base of the tongue; but I was then in some doubt as to the true position of these tufts. There is no doubt as to the present species being congeneric with the African one; but the tufts belong undoubtedly to the maxillary palpi, the joints of which they conceal. Having only a single specimen, I am again precluded from dissecting it; but the original generic description must be amended in this particular, and the name, which is misleading, must be changed. The specimen in the collection of the American Ent. Soc. Philadelphia is much worn; but the genus is completely distinct from all other known genera, and is easily recognizable at a glance by the ornamentation of the hind wings. Since this specimen has been sent back to America, I have received, through the kindness of Mons. E. Ragonot, a beautiful example, collected in Texas

by the late Mr. Boll, which has enabled me to amend the description. Fore wings straight, narrow and sharply pointed, straw-colored; an oblique brownish streak or fascia about the basal third of the wing, nearer to the base on the dorsal than on the costal margin, sending a point of scales of the same color outwards along the middle of the cell, with silvery metallic scales before it towards the base, above it towards the costa, and beyond it along the dorsal margin, some of which have a lilac iridescent lustre; a brownish streak from the commencement of the costal cilia, tending obliquely outwards to the dorsal margin, internally margined with bright silvery scales, above and below which are brownish-fuscescous streaks through the cilia; the extreme apex is silvery. The hind wings, which are narrower than the fore wings, are pale straw-colored, straight and sharply pointed, showing three distinct silvery fasciæ, the outer one being the narrowest of the three; these are margined on both sides by brownish submetallic scales; beyond the outer fascia is a bronzy brown shade, the cilia above and beneath it, and at the extreme apex, being darkened in contrast to the remainder, which are very pale straw-white; legs very pale straw-color; abdomen straw-colored, barred with silvery. On the dorsal margin of the fore wings are two groups of dark projecting scales, one before and one beyond the middle, and there is a similar group before the middle of the hind wings. Expanse 10 millim.

One specimen in the collection of the Am. Ent. Soc. Philadelphia.

#### Genus **ELACHISTA.**

1076. **Elachista? metallifera**, sp. nov.—Head, palpi, thorax, and base of the fore wings silvery grey. Antennæ somewhat darker, marked on their outer half above by six dilute silvery grey spots, including the extreme apex as one of the six. Head smooth; palpi depressed, the apical joint slightly upturned. Fore wings shining dark brown, with a slightly oblique golden fascia before the middle, wider and nearer to the base on the costal than on the dorsal margin; on its outer margin below the fold a tuft of raised brown scales; beyond the middle is a second golden fascia, wider and nearer to the base on the dorsal than on the costal margin; on its outer edge a tuft of raised brown scales; a silvery shining costal spot before the apex, and a larger opposite dorsal one with a beautiful blue and purple iridescence; the points of the brown apical cilia are whitish. Dorsal cilia and hind wings with their cilia brownish grey. The legs brown, with conspicuous shining white bands and tarsal spots. Apparently allied to *E. madarella*, Clem., but with a different arrangement of markings. Expanse 5 millim.

One specimen in Mr. Goodell's collection.

I place this provisionally in the genus *Elachista*, from which it differs only in the possession of raised tufts of scales, so far as can be ascertained without denuding the wings. *Elachista bicristatella*, Cham. Cin. Soc. Nat. Hist. vol. ii. p. 187, has the same peculiarity.

Genus **ÆSYLE.**889. **Æsyle fasciella.***Æsyle fasciella*, Cham. Cin. Quart. Journ. Sci. ii. p. 97, &c., and "Index."*Lithocolletis? fasciella*, Can. Ent. vii. p. 93.*Gracilaria fasciella*, Cham. Can. Ent. ix. p. 123; Can. Ent. xi. p. 118, ix. p. 194.*Gracilaria 5-notella*, Cham. Can. Ent. xi. p. 118, ix. p. 194.*? Gracilaria (Coriscium) quinquenotella*, Cham. Can. Ent. ix. p. 124.

Mr. Chambers first described this species under the new generic name *Æsyle*, and drew attention to its great similarity to *Lithocolletis*, except in the neuration of the hind wings (Cin. Quart. Journ. Sci. ii. p. 98); subsequently (Can. Ent. ix. p. 194) he suggested that this species, which he found had also been described by him under the name "*Gracilaria 5-notella*," might possibly be the *Gracilaria fulgidella* of Clemens.

I think this is not improbable, having regard to Dr. Clemens's description of *G. fulgidella*, and to my brief note on Clemens's type made in 1872:—"Surely not a *Gracilaria?* a small species." The species described by Mr. Chambers has not the antennæ of a *Gracilaria*, these being shorter than the anterior wings in the specimen before me. It was probably this same character which led me to doubt Clemens's specimen being a true *Gracilaria*, except in the form of the palpi. It appears to me to be more nearly allied to *Lithocolletis* than to *Gracilaria*, but I have not examined the neuration. Mr. Chambers's figure of the hind wings (Journ. Cin. Soc. Nat. Hist. p. 203, fig. 34) certainly shows some slight divergence from those of that genus. In the collection of the Peabody Academy of Sciences, Salem, Mass., are specimens of the two extreme varieties referred to by Mr. Chambers (Can. Ent. ix. p. 194, xi. p. 118). It is difficult to believe that they can be referable to the same species, although he gives apparently good reasons for thinking that they are so.

Genus **LITHOCOLLETIS.**655, 656. **Lithocolletis marizella.***Lithocolletis marizella*, Cham. Cin. Quart. Journ. Sci. ii. p. 99.*Lithocolletis alniella*, Cham. "Index" partim.*Lithocolletis trifasciella*, Cham. Can. Ent. xi. p. 92.

This species approaches very closely to *Lithocolletis frælichella*, Zell. (Wocke, 2892), but differs from it in having the first and second transverse fasciæ curved outwards, instead of straight as in the European species. *L. marizella* has been bred from *Symphoricarpus*; *L. frælichella* feeds on *Alnus*. I received a specimen in 1878 from Miss Murtfeldt, labelled "*L. lucidicostella*, Clem.; *marizella*, Cham." It is quite distinct from *lucidicostella*, of which Mr. Stainton writes (Tin.

Nor. Am. p. 66), "allied to *heegeriella*, Zell., and *tenella*, Zell., Mr. Chambers in his "Index" gives *marizella* as a synonym of *L. alniella*, Zell., and refers wrongly to Can. Ent. vi. p. 99 for the description. The reference should be Cin. Quart. Journ. Sci. ii. p. 99.

The specimens now before me from Miss Murtfeldt's collection agree with Chambers's description of *L. marizella*, from which *L. alniella*, Zell., is quite distinct, *alniella* being a grey-colored species, not golden.

*L. trifasciella*, Haw., to which Mr. Chambers subsequently refers his *L. marizella*, is also distinct from this species, having the dark anterior margins of white transverse fasciæ much wider and more conspicuous. There is an American specimen of the true *L. trifasciella* in Prof. Riley's collection labelled "From leaves of honeysuckle."

#### **Lithocolletis desmodiella.**

*Lithocolletis desmodiella*, Clem. Proc. Ac. Nat. Sci. Phil. 1859, pp. 319, 320; Tin. Nor. Am. pp. 65, 68, &c.

*Lithocolletis gregariella*, Murtfeldt, Can. Ent. xiii. p. 245.

Specimens received from Miss Murtfeldt as *Lith. gregariella*, some in Prof. Fernald's collection, some in my own, undoubtedly agree with *Lith. desmodiella*, Clem., from which Miss Murtfeldt was led to believe that they differed in some slight degree when she redescribed this pretty little species.

40. **Lithocolletis pomifoliella**, Zell. (Wocke, Cat. 2852).

*Lithocolletis cratægella*, Clem. Proc. Ac. Nat. Sci. Phil. 1859, p. 324; Tin. Nor. Am. pp. 76, 77.

This specimen in Prof. Fernald's collection labelled "*Lithocolletis cratægella*, Clem.," agrees with two others from Miss Murtfeldt's collection under the same name. These are undoubtedly our well-known European *L. pomifoliella*.

Clemens writes of his *L. cratægella*, "Antennæ, front, and tuft dark silvery grey." Stainton writes of *L. pomifoliella*, "head bright saffron-yellow; face and palpi white; antennæ white, annulated with fuscous." I have not been able to detect any differences in these points between American and European specimens. The faces of those now before me are as white as in English examples, and their heads are tufted with saffron above; their antennæ are also faintly annulated.

#### Genus **TISCHERIA.**

662, 663. **Tischeria tinctoriella?**

*Tischeria tinctoriella*, Cham. Cin. Quart. Journ. Sci. ii. pp. 108-111.

These specimens are wrongly named in Miss Murtfeldt's list "*Lithocolletis quercifoliella*, Clem.," with a footnote:—"I think there is a

mistake about this species somewhere." Clemens did not describe a *Lithocolletis quercifoliella*; he renamed *Argyromiges quercifoliella* of Fitch, and called it *Lithocolletis fitchella*. The specimens before me belong to the genus *Tischeria*, and are probably the same as those referred to by Chambers under the name *T. tinctoriella*. The purple zigzag lines on the nidus of the larval mine, which accompanies these specimens, point to this conclusion. They approach in some respects Clemens's description of the female of his *Tischeria zelleriella*, of which Chambers states that, so far as he is able to learn, there is no authentic specimen now extant." In Mr. Stainton's edition of Dr. Clemens's papers this is one of the few species not marked with an asterisk in the Index, thus signifying that it is one of which I did not see the type in the collection of the Entomological Society at Philadelphia in 1872. My notes assure me that this is a mistake. I have a memorandum, made when the types were examined by me at that time, to the effect that this species (*T. zelleriella*) approaches very closely to *T. citrinipennella*, from which it seems probable that Clemens's type specimen still exists and that my observation refers to a male.

The American representatives of the genus *Tischeria* require very careful study before a revision can be attempted.

#### Genus **LYONETIA**.

599. ***Lyonetia latistrigella***, sp. nov.—Head and palpi white. Antennæ, except the white basal joint, bronzy brown. Thorax and fore wings white, with an oblique broad bronzy brown streak from the middle of the dorsal margin, somewhat narrowed where it crosses the fold, thence again dilated, ending in an obtuse point slightly above the middle of the wing at the commencement of the apical fourth; beyond this is a large ferruginous patch, with one dorsal and three costal white streaks, internally margined with bronzy brown, and a large round black apical spot, preceded by some white scales from above and beneath; dorsal cilia of fore wing, abdomen, and hind wings with their cilia all bronzy brown; legs white, touched with brown at the tarsal joints. Expanse 9 millim.

One specimen in collection of Am. Ent. Soc. Phil.

It is not impossible that this may be a variety of the species described by Dr. Packard as *L. nidificansella* (Guide, 354), which, as pointed out by Mr. Chambers, is evidently a *Lyonetia*; but the absence of the costal streaks and other markings alluded to in the description lead me to regard it as a distinct species. Dr. Packard's species is probably more nearly allied to *L. speculella*, Clem.

#### Genus **BUCCULATRIX**.

##### 1165. ***Bucculatrix trifasciella***.

*Bucculatrix trifasciella*, Clem. Proc. Ent. Soc. Phil. v. p. 147; Tin. Nor. Am. p. 272, &c.

*Bucculatrix obscurifasciella*, Cham. Can. Ent. v. p. 150.



This specimen in Prof. Riley's collection, received from Mr. Chambers as his *B. obscurofusciella*, is equal to specimens of *B. trifusciella*, Clem., in my collection, which were named in America, probably from Clemens's type.

1013, 1014. ***Bucculatrix pomifoliella*.**

*Bucculatrix pomifoliella*, Clem. Proc. Ac. Nat. Sci. Phil. 1860, p. 211.

*Lithocolletis curvilineatella*, Pack. Guide, p. 354.

*Bucculatrix pomonella*, Pack. Guide, 7th edit. p. 354, pl. 8.

Mr. Chambers (Can. Ent. iii. p. 184) rightly suggested that Dr. Packard's *L. curvilineatella* was probably a *Bucculatrix*. In the 7th edition of the 'Guide' (1880) the name *B. pomonella*, Clem., is substituted for *L. curvilineatella* on page 354, although the latter remains in the Index as before.

The specimens before me, belonging to the collection of the Peabody Academy of Sciences, Salem, Mass., are, according to my information, the types of *L. curvilineatella*, Pack.

#### Genus **MICROPTERYX**.

815. ***Micropteryx auricyanea***, sp. nov.—Head and face rough hoary whitish grey. Antennæ missing. Fore wings golden bronzy, streaked and dotted with brilliant bright blue metallic scales set on purple. The most noticeable of these are a series of spots around the apex and apical margin, an oblique streak from about the middle of the dorsal margin, and some blotches towards the middle of the costa and above the anal angle. Cilia bronzy grey. Hind wings greyish towards the base, becoming purple towards the apex; cilia light yellowish grey. Expanse 13 millim.

This species is very nearly allied to *M. fastuosella*, Zell., but differs in the arrangement of the blue spots, which in *fastuosella* are much more evenly distributed.

One specimen in the collection of the Peabody Academy of Science, Salem, Mass.